



Additional chart coverage may be found in CATP2, Catalog of Nautical Charts.

SECTOR 4 — CHART INFORMATION

SECTOR 4

CAP LOPEZ TO PONTA ALBINA

Plan.—This sector describes the SW coast of Africa from Cap Lopez to Ponta Albina, and includes the Congo River. The descriptive sequence is from N to S.

General Remarks

4.1 The coast extending between **Cap Lopez** (0°37'S., 8°43'E.) and the Congo River, about 390 miles SE, is bordered by a narrow sandy beach on which the heavy surf breaks, particularly during the dry season. The landing of boats is impossible on this coast, except in a few places, and then only on exceptionally fine days.

The lagoon entrances lying along this stretch of coast change position from year to year. These river mouths, which can be often easily identified on radar, are marked by a discoloration of the water which extends, in places, up to more than 1 mile offshore during the rainy season.

All of the small coastal indentations located S of the Equator recede in a SE direction and are protected on their W sides by low tongues of land which are prolonged by shoals or spits. This peculiarity of form is probably caused by the combined action of the SW swell and the prevailing current. Most of these indentations are difficult to identify from seaward because their low entrance points cannot be distinguished from the background.

Between Cap Lopez and the Congo River, the 200m curve lies nearly parallel with the coast at a distance of about 35 miles offshore. Depths of 9 to 13m are found about 2 miles offshore. The bottom consists of mud in depths of over 100m, but consists of sand closer inshore.

At Ponta das Palmerinhas, 185 miles SSE of the Congo River, the 200m curve approaches to within 5 miles of the coast.

The coast between the Congo River and **Ponta das Salinas** (12°50'S., 12°56'E.) provides several anchorages, the principal ones being at Luanda, Porto Amboim (Benguela Velha), Lobito, and Baia de Benguela. Between Benguela and Tombua (Porto Alexandre), 210 miles SSW, great depths lie close to the coast and anchorage is impossible, except in a few sheltered bays.

At a distance of 9 miles off the mouth of the Congo River, the surface water is still quite fresh. It is only partially mixed with salt water at a distance of about 40 miles offshore. The resulting discoloration caused by the fresh water has, at times, been observed up to 300 miles from the coast.

Winds—Weather.—Along most of this coast, a SW or W breeze (sea breeze) is prevalent from late morning until 2100 hours. At about midnight, a SE or E breeze (land breeze) begins and becomes light and variable by morning.

Tides—Currents.—The range of tide is comparatively small along this coast, only exceeding 1.8m at springs in a few of the river estuaries. The tidal currents are weak except in the vicinity of the few main rivers.

The Benguela Current flows N along the W coast of Africa from the vicinity of the Cape of Good Hope to the Gulf of Guinea. It attains rates of 1 knot within about 40 miles of the coast and 0.4 to 0.8 knot farther offshore. This current is usually stronger in December and January, when the SE trade winds are well established.

Between Cap Lopez and the Congo River, a current generally sets steadily in a NW direction, sometimes attaining a rate of up to about 2 knots. It is formed by the Benguela Current and the current which flows out of the Congo River. This resultant current then turns W off Cap Lopez and becomes part of the South Equatorial Current. Inshore, the direction and rate of the current are largely influenced by the formation of the land and the winds. During steady N winds, which are very rare, the direction of the current is sometimes reversed.

Caution.—During the rainy season, debris of all kinds may be encountered at considerable distances from the coast and as far N as **Pagalu** (1°26'S., 5°37'E.).

The light sandy color of the coast, as well as the extreme haziness of the atmosphere that generally prevails, may tend to cause mariners to overestimate the distance from the shore. Therefore, vessels are advised to maintain a prudent distance from the coast. This applies particularly in the area lying between Ponta das Salinas and Ponta de Sao Jose, 22 miles NE.

Vessels are cautioned that security off the African coast and within some ports is a serious problem. In recent years (1986-2000), several attacks by pirates and thieves have been reported. These have generally taken place at the outer anchorages, but some have occurred while berthed alongside.

Cap Lopez to Pointe Banda

4.2 Cap Lopez (0°37'S., 8°43'E.), the N extremity of Ile Lopez, has been previously described in [paragraph 3.54](#). Several flares are situated in the vicinity of the cape and a conspicuous flare, position approximate, stands on the shore, about 57 miles SSE of them.

The coast between Cap Lopez and Ombue, 66 miles SSE, is uniformly thickly-wooded, while between Ombue and Sette Cama, 64 miles SSE, it consists of large patches of bare ground alternating with thick jungle.

The mouth of the Animba River, which is an arm of the delta of the Ogoove, lies 24 miles S of Cap Lopez. The river is not navigable and its entrance is bordered, on the W side, by a long, narrow tongue of sand. During the rainy season, enormous amounts of fresh water discharge from the river mouth and extend up to 4 or 5 miles offshore.

Grondin Oil Drilling Area (1°10'S., 8°40'E.), which may best be seen on the chart, lies between 7 and 60 miles S of Cap Lopez. It extends up to 28 miles offshore and is marked by lighted buoys. A light shown from a structure standing (position approximate) 66 miles SSE of Cap Lopez indicates the SE end of this area.

Numerous wells, production platforms, drilling rigs, flares, submarine pipelines, and associated obstructions lie within this drilling area.

Caution.—A restricted area, which may best be seen on the chart, surrounds the Grondin Oil Drilling Area. Only vessels employed by the oil installations and tankers proceeding to and from the terminals may navigate within this area.

Drilling rigs and associated structures and obstructions, which may be unlit and not charted, are reported to be situated within the restricted area.

4.3 Gombe-Beta Marine Terminal (1°12'S., 8°56'E.) lies within the Grondin Oil Drilling Area, 37 miles SSE of Cap Lopez. It consists of a 78,000 dwt storage tanker permanently moored in a depth of 15.2m. Vessels of up to 150,000 dwt and 280m in length can be handled. Vessels are moored to the bow of the storage tanker and their sterns are made fast to mooring buoys.

Vessels should contact the terminal on VHF channel 8 when within range and obtain berthing instructions. Vessels waiting to berth should anchor in a designated area, with a radius of 0.5 mile, centered about 1.7 miles NW of the terminal. Pilotage is compulsory. Pilots, who act as mooring masters, can be contacted by VHF and board in the anchorage area.

4.4 Oguendjo Oil Terminal (1°28'S., 8°55'E.) lies within the Grondin Oil Drilling Area, 51 miles SSE of Cap Lopez. It consists of an SBM to which a 238,400 dwt storage tanker is permanently moored.

The terminal lies in a depth of 27.4m and can handle vessels of up to 170,000 dwt and 18.3m draft. Vessels are berthed during daylight only and are moored to the bow of the storage tanker.

Production platforms are situated 2.5 miles E and 1.5 miles SW of the terminal.

Pilotage.—Pilotage is compulsory. Pilots, who act as mooring masters, can be contacted by VHF and board either in the anchorage area or in a designated semicircular boarding zone centered about 1.7 miles NW of the SBM.

Vessels waiting to berth may anchor in a designated area, which lies 13 miles SE of the terminal and is limited by 1°36'S, 1°40'S, 8°57'E, and 9°02'E.

Vessels should send an ETA 72 hours, 48 hours, and 24 hours prior to arrival and then maintain a continuous VHF listening watch not less than 12 hours before arrival in order to receive instructions. An access lane, 1.7 miles wide, leads in a NW direction and may best be seen on the chart. It extends for 12 miles from the anchorage area to the mooring master boarding zone.

4.5 Pointe Sainte-Catherine (1°53'S., 9°16'E.), a slight projection, is fronted by a reef on which the sea breaks heavily. From the N, this point appears as an isolated clump of tall trees resembling an island, but from the S, the coast appears craggy. Some hills rising close S of the point give it a bold appearance. The land behind the shore, which is fringed by a beach, rises gently with clearings here and there.

Pointe Guega is located 4.5 miles N of Pointe Sainte-Catherine and fringed by rocks.

The village of Iguela, situated 4.5 miles SE of Pointe Sainte-Catherine, stands on a narrow strip of land which separates Lagune Ngobe from the sea. An airfield is situated near this village. Anchorage may be obtained, in a depth of 9m, SW of the village and about 1.5 miles offshore. Two beacons, each surmounted by a square, form a range which leads, clear of dangers, in a NE direction toward the anchorage. From this anchorage, the flagstaffs of some factories can be seen over the tops of the trees.

Caution.—This part of the coast should not be approached within a distance of about 4 miles by vessels without local knowledge.

4.6 Tchatamba Terminal (2°04'S., 9°36'E.), a Floating Storage and Offloading facility (FSO), is permanently moored in a depth of 46m on a heading of 011°. The terminal is connected by a submarine pipeline to a production platform located 0.5 mile ESE. Berthing is conducted during daylight hours. The terminal can accommodate tankers up to 135,900 dwt.

Pilotage.—Pilotage is compulsory. Pilots board the vessel 3 miles NW of the terminal. Vessels should arrive by 1500 to ensure that mooring operations are complete by 1830.

Anchorage.—Anchoring is available within 2 miles of 1°59'S, 9°10'E in sand or clay.

Caution.—There is a restricted area, with a radius of 3 miles, centered on the terminal. No vessel may enter the restricted area without permission from the terminal.

4.7 Pointe Komandji (2°19'S., 9°36'E.) is located 34 miles SE of Pointe Sainte-Catherine. The coast between recedes slightly and its aspect becomes more varied. A narrow beach fronts the shore in some places and trees grow down to the water in other places. In the S part of this stretch, the mouths of rivers are indicated by narrow gaps in the trees. Inland, the country is more elevated and a few hills form a chain which runs parallel with the coast. The surf breaks heavily along this entire stretch of coast, except in a few places where landing may be effected in fine weather.

Pointe Komandji is rounded and difficult to identify from the W. However, several large green patches are located at the extremity of Pointe de Gaca, 3 miles S, which help to distinguish this locality. The neighboring coast is slightly elevated and covered with brushwood, through which several streams wind. The large mouths of these streams form a succession of lagoons and marshes.

Drying rocks front the coast and the sea breaks about 1 mile offshore. Several villages stand between Pointe Komandji and two points named Pointe Magamba and Pointe Milango, which are located 4 miles and 7 miles, respectively, SSE.

Caution.—Oil and gas exploration is being carried out along this coastal area and vessels are warned that numerous wellheads, submerged pipelines, drilling rigs, and platforms may be encountered. Vessels should also exercise care when navigating in this vicinity, as many of the associated structures and installations are often moved and are not charted. In addition, some of the platforms and structures may be disused, abandoned, and unlit.

4.8 Sette Cama (2°31'S., 9°45'E.), situated 15 miles SE of Pointe Komandji, stands at the root of a tongue of land which separates the channel leading to Lagune Ndogo from the sea. The seaward entrance of this channel lies 9 miles SE of Pointe Komandji. Several buildings, including a factory with a flagstaff, stand in the vicinity of Sette Cama. In addition, a small airfield is situated nearby. Communication with the factory can be carried out by the International Code of Signals.

Several rocky shoals front the coast and lie up to 1 mile offshore. They have depths of less than 5m and are usually marked by breakers. A range, formed by two white beacons, indicates a passage which leads in a NE direction between the shoals to an anchorage. This passage is about 0.3 mile wide and provides access to vessels with drafts up to 5.8m. Vessels are advised to stay at least 2 miles offshore until the range beacons have been identified. When approaching the anchorage, vessels are advised to keep the front beacon open a little N of the rear beacon. Large vessels can anchor, in a depth of 11m, on the range. Smaller vessels may proceed between the shoals and anchor, in a depth of 6.7m, about 0.5 mile offshore. There is usually a heavy swell at the anchorage and the bottom is very uneven with a rocky bottom. Landing should not be attempted.

The N end of a chain of coastal hills, known as Monts Santo Espirito, rises to the S of Sette Cama and forms a good landmark. Several large clearings are located S of these hills and give the land a cultivated appearance.

4.9 Pointe Pedras (2°40'S., 9°53'E.), located 12 miles SE of Sette Cama, projects 1 mile from the line of the coast and shows up well from the S. Several isolated sandhills stand on this point and slope S to the banks of the Riviere Massetche which is the outlet of Lagune Massetche. A shoal patch, with a depth of 3.7m, lies about 3.5 miles SW of the point and several rocks, some of which dry, lie up to about 2 miles NW of the point.

Between Pointe Pedras and Pointe Banda, 97 miles SE, the 200m curve lies parallel with the coast and about 35 to 38 miles offshore. The regularity of this depth curve may be of assistance to vessels during June, July, and August, when fog may conceal the land.

The coast between Pointe Pedras and Pointe Matouti, 65 miles SE, is low and wooded, with high flat ranges inland. Between the latter point and Pointe Banda, 32 miles SE, it consists of a sandy beach backed by forests with inland ranges of hills.

4.10 Gamba Oil Terminal (2°50'S., 10°00'E.) ([World Port Index No. 46453](#)) is situated 10 miles SE of Pointe Pedras and consists of a tank farm standing 0.5 mile inland. A main light is shown from a framework tower, 40m high, standing close SW of the tank farm; several conspicuous flares are situated in its vicinity. An aeronautical radiobeacon is reported (1995) to be situated about 4 miles ESE of the terminal.

An offshore loading facility, consisting of an SBM, lies 5 miles SW of the terminal and is connected to the shore by a submarine pipeline. It lies in a depth of 20.2m and can handle vessels of up to 150,000 dwt and 17.2m draft.

Vessels can anchor, in a depth of 25m, about 2 miles NW of the SBM. Pilotage is compulsory. Pilots, who act as mooring

masters, can be contacted by VHF and board in the anchorage area. They remain on board during the entire stay. Berthing can be undertaken by day or at night. Vessels must keep their engines in readiness to move at all times.

Vessels should send an ETA at least 4 days before arrival. A confirmation message should be sent 24 hours before arrival. Vessels should then contact the terminal on VHF channel 12 when within range.

Caution.—A restricted area, 4 miles wide, extends up to 6.5 miles SW from the coast and encloses the offshore loading facility. Vessels not proceeding to or from the loading facility are prohibited from entering this area.

The offshore loading facility is subject to heavy swells and operations are sometimes delayed.

4.11 The Riviere Nyanga (2°58'S., 10°15'E.) lies with its mouth located 29 miles SE of Pointe Pedras and runs parallel to the coast, behind a narrow spit of sand, for the last 2.5 miles. The entrance, which is fronted by a large and shallow bar, was reported (1980) to be about 200m wide and radar conspicuous. It is reported to be dangerous as strong currents and a heavy sea run across the bar.

A light is shown from a structure standing 1.2 miles NW of the river entrance when a vessel is expected. A shoal, with a least depth of 6m, is reported (1976) to lie about 4.5 miles SW of the light.

Vessels loading timber can anchor, in depths of 12 to 13m, about 1.5 miles SW of the light. It was reported (1980) that vessels of up to 33,000 dwt and 176m in length had moored in this roadstead.

Pointe Panga (3°15'S., 10°32'E.) is located 24 miles SE of the mouth of the Riviere Nyanga. The coast between consists of a sandy beach backed by marshy and brush-covered land. It is featureless and has no prominent landmarks.

When seen from the N, the point presents three or four saddle-shaped summits and a conspicuous dark red cliff which is surmounted by dense woods. It is one of the most prominent landmarks along this part of the coast and cannot be mistaken. A rocky reef extends up to about 1 mile W of the point; a small cove indents the shore close N of it. A pillar is located 2 miles N of the point.

Baie de Mayumba is entered between Pointe Panga and Pointe Matouti (Pointe Kouango), 12 miles SSE. It affords good shelter during S and SE winds. The shore consists of a fine sandy beach which is fronted by breakers throughout almost its entire length and is backed by wooded hills. Lagune Mbanio empties via the Riviere Mayumba into the SE part of this bay.

4.12 Pointe Matouti (Pointe Kouango) (3°26'S., 10°38'E.) consists of several low hills which slope seaward. It terminates in a low point which is surmounted by some huts. A radio mast was reported (1992) to stand 1 mile NE of the point. Rocks, some of which dry, fringe the point and extend up to about 0.2 mile offshore. A reef extends up to about 0.6 mile NNW from the point and an islet, just showing above the water, lies on it.

A hill rises E of Pointe Matouti and is surmounted by several houses which are conspicuous from the NW, but are not visible from the S. The residency building, with a flagstaff, and some factories are situated at Mayumba, 1 mile NE of Pointe

Matouti. These buildings and the road leading to them are prominent. A small airfield is also situated in the vicinity.

Vessels loading timber can anchor, in depths of 13 to 14m, sand and mud, about 1 mile offshore, 3.8 miles N of Pointe Matouti. It was reported (1995) that vessels of up to 19,500 dwt and 156m in length had moored in this roadstead.

The coast between Pointe Matouti and Pointe Banda, 30 miles SE, consists of a sandy beach which is backed by forests. Inland, the countryside rises to three ranges of hills. Lagune Mbanio lies parallel to the coast, between 16 and 37 miles SW of Baie de Mayumba.

Rocher Noir, 1.5m high, lies close offshore, 5 miles SE of Pointe Matouti. Roche Massanga, a large black rock, lies about 0.2 mile offshore, 3 miles SE of Rocher Noir. Both of these rocks are located on a coastal bank which extends up to 0.5 mile seaward.

4.13 Lucina Oil Terminal (3°38'S., 10°45'E.) ([World Port Index No. 46454](#)), which includes a loading facility, lies about 6 miles offshore, 17 miles SSE of Pointe Matouti. The terminal includes seven production platforms which are connected by submarine pipelines. Several prominent flares are situated on these platforms. The loading facility consists of an SBM and an 85,000 dwt storage tanker, which are moored in a depth of 34m. Vessels of up to 136,000 dwt can moor to the SBM. There is no restriction on draft.

Vessels must anchor, in a depth of 34m, about 2 miles NW of the SBM. Pilotage is compulsory. Pilots, who act as mooring masters, can be contacted by VHF and board in the vicinity of the anchorage area. These pilots are stationed at Gamba Oil Terminal and are transferred to the storage tanker by helicopter. They board from launches and remain on board during the entire stay. Vessels must keep their engines in readiness to move at all times.

Vessels should send an ETA at least 4 days in advance via the Gamba Oil Terminal. Confirmation messages should be sent 72 hours, 48 hours, and 24 hours before arrival. Vessels should then contact the terminal by VHF when within range.

Caution.—A restricted area, which may best be seen on the chart, surrounds the loading facility. Vessels not proceeding to or from the loading facility are prohibited from entering this area.

Pointe Banda to Pointe-Noire

4.14 Pointe Banda (3°49'S., 11°00'E.), low and rounded, is difficult to distinguish. It may be identified by Colline de la Table, 50m high, which stands near the coast and is surmounted by a clump of palm trees and a village. The village of Sainte-Marie, situated 1.5 miles SSE of the point, is built on a hill, 20m high, and is somewhat prominent.

Anchorage may be taken by vessels with local knowledge, in a depth of 11m, mud with good holding ground, about 1 mile NNW of Pointe Banda.

Pointe Tshibobo, located 1.5 miles S of Sainte-Marie, is surmounted by a round hill which is clearly visible from the S.

Caution.—Offshore drilling operations, including seismic surveys, are in progress inshore of the 200m curve between Pointe Banda and the mouth of the **Riviere Massabi** (5°02'S., 12°01'E.). Within this area, drilling rigs, platforms, wellheads,

and submarine pipelines may be encountered. Vessels should exercise care when navigating in this vicinity as many of the associated structures and installations are often moved and are not charted. In addition, some of the platforms and structures may be disused, abandoned, and unlit.

4.15 M'bya Terminal (Mayumba Terminal) (3°53'S., 10°56'E.) consists of three production platforms which are situated 7 miles SW, 7 miles SSW, and 4.8 miles WNW of Pointe Tshibobo. These platforms are connected by submerged pipelines and a mooring buoy, for the use of a storage tanker, lies close SE of the southernmost platform.

An offshore loading facility lies 5 miles WSW of Pointe Tshibobo. It consists of an SBM moored in a depth 30m. Vessels of up to 150,000 dwt and 18m draft can be handled at this facility.

Vessels should anchor, in a depth of 30m, about 1 mile W of the SBM. Pilotage is compulsory. Pilots, who act as mooring masters, can be contacted by VHF and board in the vicinity of the anchorage area. Vessels should send an ETA via their agent 72 hours, 48 hours, and 24 hours in advance. Vessels should then contact the terminal by VHF when within range.

Caution.—A restricted area, which may best be seen on the chart, surrounds the terminal and the loading facility. Vessels which are not proceeding to or from the facility are prohibited from entering this area.

4.16 The coast extending between Pointe Tshibobo and Pointe Tchitembo, 29 miles SE, provides no shelter and is moderately high. It rises from a thick belt of trees to one or two ranges of hills which are less elevated than those farther to the N. Depths of less than 9m lie up to 4 miles seaward of the shore.

The seaward end of the boundary between Gabon and The Congo lies in the vicinity of the entrance to the Lagune Mekoundgi, about 9 miles SE of Pointe Tshibobo.

The **Riviere Konkouati** (4°00'S., 11°14'E.) lies with its entrance about 15.5 miles SE of Pointe Tshibobo. The sea breaks heavily about 0.4 mile off the mouth of this river, which is reported to be about 45m wide and radar conspicuous. Depths of less than 5m are reported to lie up to about 1.8 miles WSW of the mouth. The village of Konkouati is situated on a tongue of sand at the S side of the river entrance.

The mouth of the Numbi River, lying 10 miles SE of the Riviere Konkouati, is also reported to be radar conspicuous. Its narrow entrance discharges black water and is encumbered with numerous black rocks. The village of Madingo is situated close inside the river mouth, on the E side.

Banc du Haoussa, with a least depth 8.8m, lies about 3.5 miles W of the mouth of the Numbi River, in the approaches to Baie de Lekonde. This latter bay is a slight indentation in the coast lying between the mouth of the Numbi River and Pointe Tchitembo, 4.5 miles S. The bay can only be entered by vessels with light drafts and local knowledge. A heavy swell sometimes sets into the bay and landing is often very difficult because of the surf.

Pointe Lekonde, located 1 mile N of Pointe Tchitembo, can be identified by a small bare hill, with a flat top, which rises close N of it. A conspicuous road descends from this hill. An

isolated shoal, with a depth of 6.4m, lies about 2.5 miles NW of this point.

Banc du Promethee extends up to about 3 miles W from the coast between Pointe Lekonde and Pointe Tchitembo. It has depths of less than 5m, but does not break in calm weather.

An isolated shoal (existence doubtful), with a depth of 4m, lies about 4.2 miles W of Pointe Tchitembo.

4.17 The Kouilou River (4°29'S., 11°42'E.) lies 25 miles SE of Pointe Tchitembo. The coast between consists of a sandy beach backed by forests. Several streams flow into the sea along this stretch and a few small and land-locked lagoons lie close inland.

A line of low, bare hills stands behind the forests and is broken, 11.5 miles SE of Pointe Tchitembo, by a river. The village of Longobonda is situated in the vicinity of this river. The coast between this village and the mouth of the Kouilou River consists of sand dunes which appear white from seaward and are surmounted in a few places by palm trees.

Banc du Mulet (4°28'S., 11°33'E.), with a least depth of 5.8m, lies centered about 8 miles W of the entrance to the Kouilou River. It is a narrow ridge of hard sand and rock which lies parallel to the coast. An obstruction is reported to lie about 5 miles S of the N end of this bank.

The entrance to the Kouilou River is encumbered with shifting sandbanks and a dangerous bar, on which the sea breaks heavily. During the rainy season, discolored water extends up to 7 miles seaward of the river mouth. The village of Bas Kouilou, a small wood-loading terminal, is situated close within the mouth of the river. Ocean-going vessels can anchor, in a depth of 9m, about 2 miles W of the river mouth, but cargo operations are frequently interrupted by winds, swells, and the condition of the bar.

Caution.—Several platforms, some of which have prominent flares, are situated about 26 miles W of the mouth of the Kouilou River. In addition, two production platforms are situated about 17 miles W of the river mouth.

4.18 Yombo Oil Terminal (4°27'S., 11°06'E.), an offshore loading facility, lies about 30 miles W of the mouth of the Kouilou River and consists of a 230,000 dwt storage tanker, moored in a depth of 100m. Production platforms are situated 1.5 miles SSW and 1.5 miles SW of it. Vessels can berth at the facility during daylight hours only. Vessels of up to 155,000 dwt, 280m in length, 53m beam, and 15m draft can be handled.

Vessels should anchor in a designated area, with a radius of 1 mile, centered 12.7 miles NW of the storage tanker. Vessels should send an ETA 72 hours, 48 hours, and 24 hours in advance. Vessels should then maintain a VHF listening watch for 12 hours before arrival and contact the terminal when in range. Pilotage is compulsory. Pilots, who act as mooring masters, can be contacted by VHF and board in the vicinity of the anchorage area.

Caution.—A restricted area, which may best be seen on the chart, surrounds the terminal. Vessels not proceeding to or from the terminal are prohibited from entering this area.

4.19 Baie de Loango (4°38'S., 11°49'E.) is easily identified and lies between the entrance of the Kouilou River and Pointe Indienne, 12 miles SSW. The head of the bay, when seen from

a distance of about 3 miles, appears as a thick line of trees of uniform height surmounting the beach. A flat-topped hill with precipitous shoulders shows above the treetops to the N and close inland of the head. A continuous chain of hills extends S from the vicinity of the head and decreases in elevation. Two prominent groups of hills, with bare summits, stand close S of the bay. The vegetation on these hills grows in lines and forms the appearance of cultivated fields separated by hedges.

Pointe Indienne (4°39'S., 11°47'E.) is low, wooded, and surmounted by the ruins of a lighthouse. It is easily identified from the N or S. Low cliffs, covered with vegetation, rise close inland of the point and are surmounted by several bare hills with a reddish tinge. A conspicuous white building stands 1.5 miles E of the point and a flare is situated 0.7 mile SSE of it. The town of [Loango](#) is built on two bluffs, 1.8 miles ENE of the point.

A rocky spit, with depths of less than 10m, extends up to about 3 miles NW of Pointe Indienne and the sea breaks violently over it. A strong current, setting NNE, may be experienced off this spit. Another spit, narrow and sandy, extends up to about 3 miles NE of the point and encloses a salt water lagoon.

Good anchorage can be obtained, in a depth of 8m, excellent holding ground, about 2.5 miles N of Pointe Indienne. However, vessels should guard against E squalls, which are sometimes violent during the rainy season.

A conspicuous stranded wreck lies 1.3 miles S of Pointe Indienne.

Banc du Conflict (4°42'S., 11°45'E.), with a least depth of 8.4m, lies centered about 3 miles SSW of Pointe Indienne.

A prominent tank farm stands 4.8 miles SE of Pointe Indienne and a refinery, with a prominent flare, is situated 1.2 miles SE of it.

Caution.—A submarine pipeline extends 1.3 miles SW from a point on the shore located in the vicinity of the tank farm.

Port of Pointe-Noire (4°47'S., 11°50'E.)

[World Port Index No. 46470](#)

4.20 The Port of Pointe-Noire lies within Baie de Pointe-Noire, which is entered between Pointe Indienne and Pointe Noire, 8 mile SSE. The port is the principal harbor of the Republic of the Congo and includes several factories, saw mills, and palm oil production facilities.

Tides—Currents.—The tides rise about 1.6m at springs and 1.3m at neaps.

The current within Baie de Pointe-Noire usually sets NNE under the influence of the prevailing winds. It generally attains a rate of less than 1 knot, but may attain a rate of 1.1 knots during the month of May. The tidal currents within the harbor are weak.

Depths—Limitations.—Digue Exterieur, the main outer breakwater, extends 1 mile N in a curve from Pointe-Noire and forms the W side of the harbor. Digue Interieur, the inner breakwater, extends 0.5 mile E from near the head of Digue Exterieur and forms the N side of the harbor. A detached breakwater, 0.4 mile long, forms the E side of the harbor and may best be seen on the chart.

The main harbor entrance lies between the NW head of the detached breakwater and the E head of Digue Interieure.

Banc de l'Astrolabe lies about 1.7 miles NNE of the head of the outer breakwater. It has a least depth of 5.8m and lies parallel to the coast.

Banc Songolo, with a least depth of 6.4m, lies about 1.5 miles NE of the head of the outer breakwater.

Banc des Anglais, with a least depth of 13m, lies about 1.5 miles WNW of the head of the outer breakwater.

Banc du Sagittaire, with a least depth of 10m, and Banc de la Syzygie, with a least depth of 9.8m, lie about 1 mile WSW and 0.7 mile SW, respectively, of the head of the outer breakwater.

Banc de la Pointe, with depths of less than 5m, extends up to about 0.3 mile W of Pointe-Noire.

Quay G, situated at the N side of the harbor basin, is 520m long. It provides three berths for general cargo and ore and has depths of 9.4 to 13.2m alongside.

Quay D, situated at the W side of the harbor basin, is 720m long. It provides five berths for general cargo and has depths of 7.9 to 9.4m alongside.

Mole Quay, situated at the S side of the harbor, is 350m long. It provides two berths for general cargo, containers, and ro-ro vessels and has a depth of 9.5m alongside. An oil and gas tanker berth, with a depth of 11m alongside, is situated on the N side of Mole Quay.

A quay, 700m long, fronts the shore 1 mile E of the harbor entrance. It has depths of 3.7 to 4.9m alongside and is used by oil installation service vessels.

Tankers of up to 230m in length and 10.2m draft and bulk ore vessels of up to 200m in length and 10.4m draft can usually be accommodated within the port.

It was reported (1995) that silting in the entrance channel had reduced the maximum allowable draft for entering to 9.5m.

Aspect.—Two conspicuous silos, 28m high, stand 0.5 mile S of the head of the outer breakwater. Another silo, 50m high, stands near the root of the inner breakwater. A conspicuous spherical tank is situated 1.3 miles SSE of the head of the outer breakwater.

A main light (Pointe-Noire) is shown from a prominent tower, 20m high, standing 0.4 mile E of the spherical tank. A prominent building, 54m high, and two radio masts, each 66m high, are situated 0.7 mile ESE and 1.6 miles ENE, respectively, of the main light. A conspicuous cathedral, surmounted by two red lights, stands 0.6 mile SE of the main light. An aeronautical radiobeacon is situated about 4 miles SE of the main light.

A disused potash pier, 0.8 mile long, extends SW from a point on the shore located 2 miles SE of Pointe-Noire. It is reported to be radar conspicuous.

A lighted buoy, which marks the edge of the coastal bank, is moored about 0.2 mile N of the head of the inner breakwater. An outer lighted buoy is moored about 0.4 mile NE of the head of the outer breakwater. Two pylons, standing in the S part of the harbor, form a range which leads through the main entrance.

Pilotage.—Pilotage is compulsory for vessels over 100 grt. Pilots can be contacted by VHF and board about 0.5 mile NNE of the head of the outer breakwater. Vessels should send an ETA 24 hours and 12 hours in advance.

Anchorage.—Vessels generally anchor, in a depth of 14m, about 0.8 mile N of the head of the outer breakwater. The rollers at this anchorage are heavy and vessels are advised to keep an underkeel clearance of at least 3m.

An anchorage area, which may best be seen on the chart, lies close NE of the N head of the detached breakwater. It is used by vessels loading timber and has depths of 5.9 to 8.5m.

A designated anchorage waiting area lies about 4.5 miles NW of the head of the outer breakwater. It has a depth of 25m and is generally used by large vessels proceeding to Djeno Offshore Loading Terminal (see paragraph 4.22).

Caution.—A dangerous wreck lies about 1.2 miles ENE of the head of the outer breakwater.

The sandy shoals and drying banks lying NE and E of the N part of the outer breakwater are reported (1994) to be extending seaward.

A spoil ground area lies 1.5 miles NE of the head of the outer breakwater, between Banc de l'Astrolabe and Banc Songolo.

A log pond area, with several mooring buoys, lies adjacent to the E side of detached breakwater.

Vessels approaching from the N should use care to avoid Banc du Conflict. Vessels approaching from the S should use care to avoid the dangers lying up to 2 miles W of Pointe-Noire.

The head of the outer breakwater should be given a wide berth, as the swell forms heavy rollers, especially between May and October.

An anchorage prohibited area, which may best be seen on the chart, extends up to 0.5 mile N of the main harbor entrance.

Less water than charted has been reported (1995) to lie on the W side of the entrance channel and 0.5 mile N of the harbor entrance.

It was reported (1994) that reclamation and construction work is being carried out close E of the outer part of the outer breakwater and close N of the root of the inner breakwater.

Offshore oil drilling and production operations are in progress within the approaches to the port. Drilling rigs, platforms, wellheads, and submarine pipelines may be encountered. Vessels should exercise care when navigating in the approaches, as many of the associated structures and installations are often moved and are not charted. In addition, vessels are prohibited from anchoring or fishing in the vicinity of the pipelines.

Pointe-Noire to the Riviere Massabi

4.21 The coast between Pointe-Noire and Pointe Mvsa, 7 miles SE, consists of a narrow beach backed by a ridge, about 12m high. The shore is exposed to the prevailing wind and swell and the surf breaks very heavily along it.

Pointe Mvsa (Fausse Pointe Noire) (4°53'S., 11°54'E.) is 7m high, rocky, and steep. The mouth of Lagune M'Vassa lies close N of this point.

The N end of Lagune Malonda lies about 11 miles SE of Pointe-Noire. This lagoon lies close inland and extends parallel to the coast for about 4 miles.

The **Riviere Massabi** (5°02'S., 12°01'E.) lies 19 miles SE of Pointe-Noire. Its mouth, which forms a common entrance with the Riviere Loeme, is only about 60m wide and has a least depth of 0.5m. Anchorage can be taken, by vessels with local

knowledge, in a depth of 10m, fairly good holding ground, about 1 mile offshore. This stretch of coast has very few prominent landmarks.

The seaward boundary between The Congo and Angola (Cabinda) lies in the vicinity of the river mouth and is marked by beacons.

4.22 Djeno (4°55'S., 11°56'E.), a submarine pipeline landing terminal, lies 10 miles SE of Pointe-Noire. A main light, which indicates the offshore oil installations, is shown from a structure, 17m high, standing on the shore. A pylon, 110m high, is situated close to the light.

Djeno Offshore Loading Terminal (4°56'S., 11°54'E.) (World Port Index No. 46472) consists of two SBM berths. SBM No. 1 is moored 2 miles SW of Djeno in a depth of 22m. SBM No. 2 is moored 3 miles SW of Djeno in a depth of 29m. Both SBMs can handle vessels of between 40,000 and 140,000 dwt, up to 320m in length, and up to 16m draft. Partially loaded vessels of up to 240,000 dwt can also be handled.

The prevailing current in the vicinity of the terminal runs strongly NW. Vessels must have their engines available at all times. Vessels should send an ETA 72 hours, 48 hours, and 24 hours in advance. Pilotage is compulsory. Pilots, who act as mooring masters, are provided by the station at the Port of Pointe-Noire. They can be contacted by VHF and board about 2.3 miles W of the head of the outer main breakwater.

Caution.—A restricted area extends up to 1 mile from the terminal. Vessels not proceeding to or from the terminal are prohibited from entering this area.

If weather conditions are poor, the maximum draft allowable for entry may be reduced.

4.23 Yango Oil Field (4°44'S., 11°24'E.) lies 33 miles WSW of Djeno. It consists of five platforms, with a flare situated at the center one.

Kitina Oil Field (4°55'S., 11°23'E.) lies 9 miles SSW of Yango Oil Field and consists of one platform.

Sendji Oil Field (4°47'S., 11°28'E.) lies 5 miles SE of Yango Oil Field and consists of several platforms.

Tchibouela Oil Field (4°54'S., 11°40'E.) lies 17 miles W of Djeno and consists of three platforms.

Tchendo Oil Field (5°02'S., 11°39'E.) lies 18 miles WSW of Djeno and consists of one platform.

Emeraude Oil Field (5°03'S., 11°47'E.) lies 11 miles SW of Djeno. It consists of thirteen platforms in the N part and seven platforms in the SE part.

Likouala Oil Field (5°13'S., 11°44'E.) lies 22 miles SW of Djeno and consists of two platforms. The offshore loading terminal is located about 2 miles E of the S platform. Vessels waiting to load should stop and drift in the waiting area, which has a diameter of 6 miles and is located about 13 miles NW of the N platform. Vessels should ensure they do not drift E of longitude 11 27.5'E. The mooring master boards about 3 miles N of the offshore loading terminal.

4.24 N'Kossa Oil Field (5°11'S., 11°34'E.) lies 30 miles SW of Djeno and consists of two platforms. It was reported (1995) that development of this field would include an export facility consisting of one oil storage-loading vessel and one LPG storage-loading vessel.

Berthing at N'Kossa 1 is by single mooring from the stern of the Floating Storage and Offloading (FSO) vessel to the bow of the loading tanker. Ships berth from 0600 to 1600 local time, however unberthing can be carried out at any time.

Pilotage.—Pilotage is compulsory. The mooring master boards at 5°13'S, 11°36'E and remains on board the vessel for the duration of the cargo transfer.

Anchorage.—It has been reported (1995) that a designated tanker (waiting area) anchorage, with a radius of 1.5 miles, has been established 11.5 miles W of Djeno. A designated approach channel leads 14 miles SSW from this anchorage area and passes between Emeraude Oil Field and Likouala Oil Field, on the E side, and Tchendo Oil Field, on the W side.

Caution.—Restricted areas, the limits of which may be seen on the chart, enclose some of the above oil fields. Vessels without permission are prohibited from navigating within these areas.

Numerous submarine pipelines and cables lie in the vicinity of the above oil fields and may best be seen on the chart. Vessels are prohibited from anchoring or fishing in their vicinity.

Exploration and production operations are in progress in the vicinity of the above offshore fields. Numerous drilling rigs, platforms, and wellheads may be encountered. Vessels should exercise care when navigating in this area as many of the associated structures and installations are often moved and are not charted.

The Riviere Massabi to the Congo River

4.25 Between the Riviere Massabi and the mouth of the Congo River, 62 miles SSE, the prevailing nature of the bottom near the coast and in depths of up to 20m is mud. Farther offshore, the bottom consists of gray muddy sand, sand and gravel, and sand mixed with coral. The latter is more general in the mouth of the Congo River.

A dangerous wreck, consisting of a former drilling platform, lies 11.5 miles SW of the mouth of the Riviere Massabi

Caution.—An extensive area, where offshore exploration and production operations are in progress, extends up to about 40 miles offshore between the mouth of the Riviere Massabi and the mouth of the Congo River. Numerous drilling rigs, platforms, submarine pipelines, and wellheads may be encountered. Vessels should exercise care when navigating in this area as many of the associated structures and installations are often moved and are not charted.

4.26 Takula Oil Field (5°15'S., 11°50'E.) lies 17 miles SW of the mouth of the Riviere Massabi and consists of several platforms, some with prominent flares. Wamba Oil Field lies adjacent to the N side of this field, while Banzala Oil Field and Numbi Oil Field lie about 6 miles NE and 6 miles SE, respectively, of it.

Takula Oil Terminal (5°13'S., 11°47'E.) lies at the NW side of the oil field. It consists of an SBM which is moored in a depth of 70m and can handle vessels of up to 300,000 dwt. Pilotage is compulsory. Pilots, who act as mooring masters, can be contacted by VHF and board about 1.5 miles NW of the SBM. Vessels should send an ETA 72 hours, 48 hours, and 24 hours in advance.

It was reported (1995) that all crude oil production from this terminal was being transferred to Malongo Terminal (Cabinda Terminal) by submarine pipeline. Malongo Terminal is described in paragraph 4.30.

Caution.—A restricted area, which may best be seen on the chart, encloses the above oil fields and terminal. Vessels not proceeding to or from the terminal or the fields are prohibited from entering this area.

4.27 The Rio Chiloango (5°12'S., 12°08'E.), with its mouth lying 12 miles SSE of the the Riviere Massabi, is indicated by several red hills which fall steeply to the beach. Discoloration of the sea has been observed up to about 7 miles seaward of the entrance to this river. The bar fronting the river entrance can be crossed by small vessels with local knowledge, but it is dangerous because of the surf.

The coast between the Riviere Massabi and the Rio Chiloango rises to moderately high hills. A ridge of hills extends S from the vicinity of the Rio Chiloango to the mouth of the Congo River. It stands between 5 and 8 miles inland and attains heights of 120 to 156m.

Ponta Cacongo (Ponta de Landana) (5°14'S., 12°07'E.) is located 2.5 miles S of the mouth of the Rio Chiloango. It is conspicuous and presents a bold and bluff appearance. A light is shown from a tower with a dwelling, 9m high, standing on the point. A hospital, with a red roof, is situated 0.5 mile NNE of the light.

Baia de Cacongo (Enseada Landana) (5°14'S., 12°09'E.) lies between the mouth of the the Rio Chiloango and Ponta Cacongo. The village of Cacongo (Landana) (Vila Guilherme Capelo) is situated at the head of this bay. A conspicuous administration building, with a flagstaff, stands on a bluff close S of the village. Cargo can be worked at the roadstead by lighters, but this bay is little frequented as the anchorage is poor, a considerable distance offshore, and subject to bad swells. Small vessels with local knowledge can anchor, in a depth of 9m, mud, about 3 miles W of the administration building. The bottom is rocky in depths of less than 5m.

4.28 Ponta de Malembo (5°20'S., 12°10'E.) is located 5.6 miles SSE of Ponta Cacongo. It lies at the S end of Baia de Malembo and consists of a grassy tongue of land extending NNW from the base of several abrupt and red chalky cliffs. These cliffs, which are surmounted by vegetation, line the coast to the N and S of the bay and are about 30m high. They assist in identifying the bay, which is reported to be difficult to distinguish from offshore.

A narrow rocky shoal, with depths of less than 5m, extends up to about 1 mile NW of Ponta de Malembo.

The village of Malembo is situated 1 mile SE of Ponta de Malembo; a prominent water tower stands in its S part. Another prominent water tower surmounts the red cliffs, 1 mile ENE of the point. Large vessels usually anchor, in a depth of 11m, well to the N of the bay and NW of Ponta de Malembo. Small craft can anchor within the bay, but are exposed to the heavy swell. Rollers are also frequent and heavy. They occur, more often than not, during calms.

Caution.—Vessels without local knowledge are advised not to approach the coast between Baia de Cacongo and Baia de Malembo in depths of less than 11m.

Baia de Malembo lies within a restricted area. Vessels should receive permission from the authorities prior to anchoring within this area.

4.29 Malongo Oil and Gas Field (5°24'S., 12°04'E.) lies between Ponta de Malembo and Ponta de Tafe, 15 miles S. This field extends up to 13 miles offshore and may best be seen on the chart. It consists of Malongo North Field, Malongo South Field, Malongo West Field, Limba Field, Kali Field, Lifuma Field, Kungulo Field, and Vuko Field. Numerous rigs, platforms, wells, submarine pipelines, and flares exist within these fields, but are not charted.

Platform Juliet (5°25'S., 11°59'E.), which is situated 12.5 miles W of Malongo, is equipped with a racon; a prominent flare burns on a platform standing close W of it.

Malongo (5°26'S., 12°05'E.) ([World Port Index No. 46475](#)), a submarine pipeline landing terminal, is situated 4 miles SSE of Ponta de Malembo. A prominent tank farm and a flare are situated near the shore and are fronted by an L-shaped jetty. This jetty, 342m long, is used by small coasters and oil production service vessels, but is subject to a heavy swell. A lighted range, which may best be seen on the chart, is situated in the vicinity of the tank farm. A radio tower, 125m high, is reported (1991) to stand about 0.5 mile SE of the rear range structure.

4.30 Malongo Terminal (Cabinda Terminal) (5°26'S., 12°05'E.) consists of an oil loading facility and a gas loading facility.

The oil loading facility consists of two SBMs. Malongo SBM No. 1 is moored in a depth of 22.8m, about 6 miles ESE of Platform Juliet. It can accommodate vessels of up to 140,000 dwt and 16.8m draft. Malongo SBM No. 2 is moored in a depth of 30.5m, about 3.5 miles SE of Platform Juliet. It can accommodate vessels of up to 325,000 dwt and 350m in length.

The LPG loading facility lies 1.5 miles E of Platform Juliet and consists of a 55,000 dwt storage vessel. This storage vessel is secured to an SBM which is moored in a depth of 32m. Vessels of up to 40,000 dwt can be accommodated alongside the storage vessel.

Winds—Weather.—During the rainy season, from the middle of October to the end of April, local thunderstorms may be experienced, particularly from December onwards. These thunderstorms are usually accompanied by heavy rains, which last up to 3 or 4 hours, and occasionally by sudden squalls with winds of up to 75 knots. Generally, the winds are mostly from the S and at less than 20 knots. During the dry season, a long SW swell affects this area and may exceed 4.5m in height.

Tides—Currents.—In the vicinity of the anchorage area, the current generally sets between NW and NNW. It sometimes exceeds 3 knots, being affected by the outflow from the Congo River. In the dry season, a SSW current can be experienced.

Pilotage.—Pilotage is compulsory. Pilots, who act as mooring masters, can be contacted by VHF and board in the vicinity of the anchorage area. Vessels should send an ETA 7 days, 72 hours, 48 hours, and 24 hours in advance through Luando Radio (D3E). Vessels should then contact the terminal by VHF when within range.

Anchorage.—All vessels awaiting a pilot or a berth should anchor in a designated area, with depths of 38 to 40m, lying about 4 miles WSW of Platform Juliet.

Caution.—Due to drilling operations and the existence of new production platforms and submarine pipelines, the position of the designated anchorage area may vary.

A restricted area, which may best be seen on the chart, encloses the loading facilities and terminals. Vessels not proceeding to or from these facilities or terminals are prohibited from entering this area.

4.31 Praia de Futila (5°26'S., 12°13'E.), a village, stands 3.5 miles SSE of Malongo. The coast in this vicinity is formed by a broad, low plain which is studded with palm trees.

A bank of sand and rock, with depths of less than 5m, fronts this village and extends up to about 1.5 miles offshore. This bank also fronts the coast to the S and extends up to about 3 miles seaward from the head of Baía de Cabinda. Shoal depths of less than 5m lie on the outer edge of this bank, but the sea does not usually break on it. Vessels without local knowledge are advised to give this stretch of coast a wide berth.

Futula Oil Terminal (5°27'S., 12°11'E.) lies 2.5 miles SW of Praia de Futila and consists of four mooring buoys. A submarine pipeline leads NE and connects the terminal to the shore. Vessels of up to 6,500 dwt and 6.7m draft can be accommodated.

Kokonga Oil Field (5°36'S., 11°42'E.), consisting of two production platforms, lies about 21 miles SW of **Platform Juliet** (5°25'S., 11°59'E.). A restricted area surrounds the platforms, as shown on the chart. A submarine pipeline connects the platform to the shore at Malonga.

4.32 Ponta de Tafe (5°33'S., 12°11'E.), marked by a light, is low and covered by bushes. It is located 9.5 mile S of Malongo and forms the SW entrance point of Baía da Cabinda. A prominent monument surmounts a cliff, 0.5 mile SSW of the point, and a radio mast stands 1 mile S of it.

Several rocks, on which the sea breaks, front this point and the coastal bank, with depths of less than 5m, extends up to about 2 miles WSW of it.

Baía de Cabinda (5°32'S., 12°12'E.) ([World Port Index No. 46490](#)) lies E of Ponta de Tafe and is mostly encumbered by the coastal bank. Baixo do Bele, a rocky shoal, lies in the middle of the bay. It has a least depth of 2.5m and is located 2 miles NNE of Ponta de Tafe.

The head of the bay consists of a sandy beach backed by lofty cliffs, green hills, and deep valleys. The town of Cabinda is situated 0.7 mile E of Ponta de Tafe and is hidden by the trees which stand on the sides and summit of an area of elevated land. A prominent three-story structure stands in the town, 1 mile SE of Ponta de Tafe. It was originally used as a lighthouse, but is now a clock tower. An airfield is situated on the SE side of the town.

Several factories stand along the bay and an L-shaped pier fronts the shore, 0.5 mile E of Ponta de Tafe.

Vessels may anchor, in a depth of 9m, mud, about 2.3 miles WNW of Ponta de Tafe or closer inshore according to their draft. Small vessels with light drafts may anchor, in a depth of 4.6m, about 0.4 mile N of the head of the L-shaped pier. A

lighted range, which may best be seen on the chart, indicates this inner roadstead.

It was reported (1994) that a designated freighter anchorage area, with depths of 10 to 11m, lies about 3.5 miles NW of Ponta de Tafe.

Caution.—Several dangerous wrecks lie in the approaches to Baía de Cabinda and may best be seen on the chart.

4.33 Between Ponta de Tafe and the entrance to the Congo River, 30 miles SSE, the country is particularly fertile and well-populated. Numerous fishing canoes may be encountered close off the coast.

A prominent radio tower stands close to the shore, 5 miles SSW of Ponta de Tafe.

The coast between Ponta de Tafe and Ponta Vermelha, 7 miles SSW, is fronted by a shoal bank which extends up to about 1.5 miles offshore and is generally indicated in places by breakers. Vessels should not approach this stretch of the coast within depths of less than 22m, as rollers have been known to break in depths of 13m and up to about 5 miles offshore.

The shore extending to 4 miles SSE of Ponta Vermelha is low and fringed with forests. A chain of reddish-colored hills, with nearly uniform height, rises close inland 3 miles S of Cabinda and extends almost to the N bank of the Congo River.

Three beacons are situated about 8 miles SSE of Pointe Vermelha and mark the boundary between Angola (Cabinda) and Zaire.

Pointe Kipundji (Kupundji) (5°53'S., 12°18'E.) is located 17 miles SE of Pointe Vermelha. The shore between is fringed by a narrow, sandy beach. A light is shown from a metal tower, 9m high, standing at Pointe Kipundji and the conspicuous village of Vista (Nsiamfumu), consisting of 30 houses, stands 1 mile NW of it. The village of Muanda (Moanda), with an airfield, is situated 4 miles SE of Pointe Kipundji.

Mona Mazea Bank (Banc Mona Mazea), an extensive shoal, fronts the coast between a point located 5 miles SSE of Ponta Vermelha and the entrance to the Congo River. This shoal has depths of less than 5m and extends up to about 5.5 miles offshore in places. Vessels are advised to avoid this shoal bank and remain in depths of over 10m, as a constant swell, frequent rollers, and a strong current from the river are frequently experienced in this vicinity.

Kambala Terminal (5°44'S., 12°05'E.), consisting of several platforms, lies 6.5 miles SW of Ponta Vermelha. A submarine pipeline leads NE and connects this terminal to the shore.

Livuite Oil Field, with two platforms, is situated 2.5 miles SW of the terminal. Livuite Gas Field, with two platforms, is situated 4 miles W of the terminal. Several submarine pipelines, which may best be seen on the chart, lie in the vicinity of these facilities.

A submarine pipeline connects Kambala Terminal with Malongo Oil and Gas Field, 14 miles N.

N'Dola Oil Field (5°45'S., 11°49'E.), consisting of several wellheads, lies 17 miles W of Kambala Terminal.

4.34 Moanda Oil Terminal (Muanda Oil Terminal) (5°55'S., 12°12'E.) extends up to about 13 miles W and 6.5 miles S of Pointe Kipundji. It consists of numerous platforms and submarine pipelines and may best be seen on the chart.

Tides—Currents.—The current at the terminal usually sets NW and attains a rate of 3 to 4 knots. It is modified by the tidal currents and greatly affected by the flow of water from the Congo River. When the water level in the river is high, the current experienced at the terminal may attain a rate of 7 knots. A heavy swell is also often experienced at the terminal between March and September.

Depths—Limitations.—The terminal loading facility, situated 10 miles SW of Pointe Kipundji, consists of an SBM and a 95,000 dwt storage tanker, moored in a depth of 21.9m. Vessels of 60,000 to 100,000 dwt and up to 15.2m draft can be accommodated. Vessels can anchor, in a depth of 28m, soft mud, about 2 miles NW of the SBM.

Pilotage.—Pilotage is compulsory. Pilots, who act as mooring masters, can be contacted by VHF and board in the vicinity of the anchorage area. Vessels can berth only during daylight hours, but may leave at any time. Vessels should send an ETA 72 hours, 48 hours, and 24 hours before arrival.

Caution.—A restricted area, which may best be seen on the chart, encloses the terminal. Vessels not proceeding to or from the terminal or adjacent fields are prohibited from entering or anchoring within this area.

The Congo River (Fluve Zaire)

4.35 The Congo River (Fluve Zaire), the second largest river in Africa, is over 2,700 miles long and is the fifth longest river in the world. However, in volume of water, depending on the season, it is second only to that of the Amazon. The Congo River is navigable by ocean-going vessels as far as Matadi, about 80 miles from the sea.

Above Matadi, the Congo River runs at rates of up to 10 knots between the cliffs. The water is generally deep, but whirlpools render navigation difficult. Rapids are located about 3.5 miles and 6.5 miles upriver from Matadi.

Inga Dam (5°30'S., 13°37'E.) is situated about 21 nautical miles above Matadi. It was built across a once dry valley. Rapids are located at regular intervals upriver between Inga Dam and **Kinshasa** (4°20'S., 15°19'E.). This latter town stands on the S side of the river, at the SW end of Pool Malebo, an extensive lake. Brazzaville is situated on the N bank, opposite Kinshasa. Pool Malebo is about 14 miles long and 11 miles wide.

The river between Pool Malebo and the town of **Kisangani** (0°31'N., 25°12'E.), about 940 miles upstream, is navigable by river craft of up to 800 dwt. Stanley Falls are located opposite the E end of Kisangani. Between Kisangani and **Bukama** (9°13'S., 25°51'E.), there are many areas of rapids, rivers, and swamp. The river source lies about 382 miles upstream from Bukama. Two dams have been built on this stretch of the river and it is not used as a means of transportation.

The boundary between Zaire and Angola lies, in the lower part, in the vicinity of the middle of the river.

Tides—Currents.—The lower part of the Congo River is well-supplied with water throughout the year, since the tributaries of this river are distributed on both sides of the Equator. The levels of the river system are usually either rising or falling and seldom remain at their mean level for any length of time. The tributaries of the left bank, on the S side, have two periods of high level and two periods of low level during the

year. Those of the right bank, on the N side, have only one period of high level and one period of low level in the course of the year. The river is low in March and July, and high in May and December. The July low level is usually lower than that in March. The mean river level at Matadi is about 26m above mean sea level.

The difference between the high river level and the low river level at the following places are, as follows:

1. Banana (6°02'S., 12°25'E.)—0.6m.
2. Mateba (25 miles above Banana)—1.5m.
3. Pedra do Feitico (10 miles above Mateba)—2.1m.
4. Boma (7 miles above Pedra do Feitico)—2.7m.
5. Matadi—7m.

At Boma, the tidal influence is perceptible, but the range is less than 0.3m. At Matadi, the tidal influence is reported to be almost not perceptible, being about 0.1m.

The river current always runs seaward. During the rainy season, this current is very rapid and usually carries along with it floating islands of papyrus and water hyacinths which have been torn away from the banks. Some of these floating islands may be more than 100m long and may be dangerous to vessels underway or at anchor. In addition, they frequently sweep away the buoys marking the channels. These floating islands may also be encountered during the low river season, but they are usually not of sufficient size to be dangerous.

Currents in the Congo River		
Location	High River Level	Low River Level
Banana to Boma	3 to 4.7 knots	2 to 3.5 knots
Boma to Matadi	7 knots	6 knots
Chaudrond'Enfer	10 to 11 knots	6 knots
Rade de Matadi	7.5 knots	—

Observations indicate that the fresh water of the river, extending from the surface to the bottom, is found until just below **Quissanga** (6°02'S., 12°39'E.), where a body of salt water is encountered in a deep gully. The fresh water then flows over the denser water with decreasing depth and increasing velocity. It also decreases in depth as the estuary widens, but is deeper on the ebb current than on the flood current.

About 5 miles below Quissanga, the layer of fresh water extends from 5.5 to 9.1m below the surface, whereas after passing **Pointe Bulabemba** (6°03'S., 12°26'E.), it is only about 1m in depth. The deep body of salt water is reported to be either perfectly still or to have a very slight tidal flow.

In the Congo River, the nature of the bottom is invariably sand, but hard clay may be found in a few places. The exception is within the deep gully lying at the mouth of the river, where deposits of soft mud and decayed vegetable matter are found. The latter is proof of the tranquillity of the water near the bottom.

Mud is found within the small creeks in the upper part of the river and also on the mangrove-covered banks extending downriver from Quissanga. The water of the river is heavily charged with sand and it would appear that a very large proportion of the mud found in the deep gully at the mouth is from the washings of the immediate neighborhood.

Depths—Limitations.—Depths of over 100m extend into the mouth of the river and may be found in the channel up to

the vicinity of Lighted Buoy No. 16 (6°02'S., 12°34'E.). The Zairian authorities endeavor to maintain a depth of 9.1m throughout the year by surveying and dredging in the sandy passes of the wandering portion of the river below Boma. However, sometimes this depth cannot be maintained due to the break-up of banks or intensive shifting of sands. These periods are relatively short and every effort is made to reestablish a depth of 9.1m as soon as possible.

The controlling depths in the river vary. It is reported (1995) that, due to the sandbanks lying between Banana and Boma, vessels with drafts of 6.4 to 8.5m are permitted to make the river transit, depending on the season. The authorities should be contacted in advance for the latest depth information.

Aspect.—The estuary of the Congo River is entered between **Ponta Vermelha** (5°39'S., 12°08'E.) and **Ponta da Moita Seca** (6°07'S., 12°16'E.), 29 miles SSE, and extends about 50 miles inland to Boma. The continental shelf, with depths of less than 200m, extends up to about 40 miles W of this estuary. It is cut by a remarkable deep gully, 2 to 8 miles wide, which has depths of over 1,400m at the outer end. This gully, which has steep and irregular sides, leads directly into the entrance of the Congo River. It is useful when approaching the entrance in foul weather, as depths of over 200m extend into the river mouth.

Presqu'île de Banana (6°01'S., 12°24'E.), located 26 miles SE of Ponta Vermelha, is a low and narrow peninsula. This sandy peninsula extends 2.5 miles S to Pointe Francaise, its S extremity. Several prominent white buildings of the town of Banana are situated on the peninsula and two conspicuous radio masts stand 1.2 miles N of Pointe Francaise. The prominent flare of an oil refinery is situated about 2.5 miles NNE of the radio masts. When rollers occur along this part of the coast at the time of the equinoctial tides, the greater part of this peninsula is submerged.

This part of the coast is fronted by a continuation of Mona Mazea Bank and depths of less than 5m lie up to 2 miles offshore. Banc Stella, a sandbank, extends up to about 0.5 mile S of Pointe Francaise. Its S edge is steep-to, but depths of less than 5m lie up to 1.5 miles W of the point. This bank was reported (1990) to be extending to the W and vessels should exercise caution when navigating in its vicinity.

Stella Lighted Buoy No. 2 is moored about 1.8 miles WSW of Pointe Francaise.

Pointe Bulabemba (6°03'S., 12°27'E.), a low point, is located 2.7 miles SE of Pointe Francaise and is marked by a light.

Ponta da Moita Seca (6°07'S., 12°17'E.) is of moderate height and appears as a steep cliff when seen from the N at a distance of about 7 miles. It is surmounted by a mound which is covered by stunted bushes. A light is shown from a metal framework tower, 21m high, standing on the point.

A stranded wreck is reported (2000) to lie about 1 mile NE of the point.

Ponta Padrao (Ponta do Padrao) (6°04'S., 12°20'E.), located 4 miles ENE of Ponta da Moita Seca, is the NE extremity of a long and low peninsula. A light is shown from a framework tower, 7m high, standing on this point. The framework tower is mounted on a carriage which enables it, when necessary, to be moved away from the heavy erosions of the river.

A village stands on Ponta Padrao; an old cemetery is situated about 0.3 mile within the point. A prominent marble column,



Ponta da Moita Seca Light from W

5m high, stands near the extremity of the point. It was set up by the famous Portuguese navigator Diego Cam in 1486.

Baia de Diogo Cao lies on the S side of the entrance to the Congo River and is entered E of Ponta Padrao. It is mostly shallow and not recommended as an anchorage. A lighted buoy is moored about 2.5 miles ESE of Ponta Padrao and anchorage can be taken, in depths of 7 to 9m, about 0.2 mile N of it.

A channel leads SSW for 3 miles along the W side of Baia de Diogo Cao to the town of Kwanda. It has a dredged depth of 6m over a width of 80m and is marked by buoys. The town is fronted by two quays, each 200m long, with depths of 5 to 6m alongside. They are mostly used by vessels servicing the offshore oil and gas installations and by fishing craft.

Canal de Soyo (Canal de Santo Antonio) (6°07'S., 12°22'E.), a creek, flows into the bay, 2.5 miles E of Kwanda; the town of Soyo (Santo Antonio do Zaire) stands on the SW side of the entrance. The channel leading into Canal de Soyo is marked by buoys and beacons and indicated by a lighted range. A conspicuous radio tower, 45m high, stands in the town and is the tallest of four towers. A small wharf fronts the town and can accommodate small vessels and ferries with drafts up to 4m. Small craft with drafts up to 1.2m can ascend the creek.

Sazaire Oil Terminal, consisting of a lighted tower, lies about 1 mile offshore, 3.7 miles ESE of Ponta Padrao. A submarine pipeline extends SSE from the terminal to the shore. This terminal is used by small local tankers and barges which transfer oil to larger vessels anchored in the vicinity of Ponta Padrao.

Pilotage.—Pilotage is compulsory for all vessels over 500 grt. Pilots for the river, Boma, Ango-Ango, and Matadi are provided from the station at Banana. They can be contacted by VHF and board between Stella Lighted Buoy No. 2 and Pointe Bulabemba or in the vicinity of Lighted Buoy No. 16 (6°02'S., 12°34'E.).

Vessels should send an ETA 5 days in advance, if possible, and a confirmation message 24 hours before arrival through Banana (9PA) radio station. Pilotage is available by day only; this may result in vessels having to anchor at Boma or Ango-

Ango overnight if there is insufficient time for them to reach Matadi during daylight.

Regulations.—For the safety of navigation, vessels proceeding to Matadi must be capable of speeds of 10.5 to 11 knots, and sometimes of speeds greater than 12 knots, depending on the season and prevailing local conditions.

Anchorage.—Vessels awaiting daylight to enter the river can find good anchorage, out of the current, in depths of 13 to 17m, between 1 and 5 miles W of Ponta da Moita Seca. Another anchorage frequently used is in depths of 8 to 18m, on the edge of the bank, between 2 and 2.8 miles WSW of Pointe Francaise.

Good anchorage may also be obtained, in a depth of 14m about 1 mile WSW of Ponta Padrao. The surface current at this anchorage has been reported to set continually W, slackening only on the flood tide.

Caution.—The great difference between the rates of the surface currents and undercurrents in the estuary of the Congo River accounts for the often reported difficulties in steering. Vessels proceeding with good speed, either directly with or against the surface current are not so much affected. However, vessels proceeding at a slow speed and broadside to the current may, at times, become almost unmanageable.

Vessels grounding on the banks where the current is strong have observed the sand to pile up against one side nearly to the surface of the water in a few hours. However, a sudden swirl of the current has then washed all the sand away and the vessel has been left in deep water.

It is stated by one local authority that, on grounding, the anchor should never be dropped, as sooner or later, the current will wash the vessel, along with part of the bank, down the river and into deep water. However, another local opinion is that the above statement is open to question, depending upon the position of the grounded vessel in relation to the bank. Consideration of the action to be taken is therefore necessary in each case.

The charts of the river should be used with care, as considerable changes in the configuration of the islands and river banks may have taken place since the last surveys. The channels are constantly changing, especially during the wet season, and at times new islands are formed and old ones swept away by the violence of the current.

Navigation aids are reported to be frequently moved, damaged, or missing, especially above Lighted Buoy No. 24. Local knowledge is necessary. The channel buoys are often towed under by the current or are swept away altogether by the floating islands and debris which flow down the river during the wet season.

Vessels are advised to give Ponta Padrao a berth of at least 1 mile, as depths in its vicinity have been reported (1972) to be less than charted.

Vessels should head E to approach the river entrance, but allowance must be made for the strong current which sets N or NW. In addition, vessels should exercise care in order not to be set onto the shoal bank extending W from Pointe Francaise.

Offshore oil and gas exploration and production operations are being carried out in the vicinity of the approaches to the river. Drilling rigs, platforms, submarine pipelines, and wellheads may be encountered. Vessels should exercise care when navigating in the approaches as many of the associated

structures and installations are often moved and are not charted.

4.36 Banana to Boma.—**Banana** (6°01'S., 12°24'E.) (*World Port Index No. 46510*), the site of the pilot station, lies within Crique de Banana, which is entered between Pointe Francaise and Pointe des Pecheurs, 0.4 mile E. An oil refinery, with a prominent flare, is situated close NE of the town which stands on Presqu'île de Banana. A channel, marked by buoys, leads N into the creek. The bar at the entrance to this channel has a depth of 5.5m at LW. The town is fronted by a quay, 75m long, which has a depth of 5.2m alongside. Vessels can anchor in the middle of the creek, about 0.5 mile N of Pointe Francaise. The creek is subject to strong tidal currents, but boats can ascend up to about 15 miles within it.

Vessels with drafts too deep to enter this creek can anchor to the E of Pointe Bulabemba, between Lighted Bouy No. 12 and Lighted Bouy No. 14, and work cargo from barges.

Tankers of up to 220m in length and 11m fresh water draft can anchor E of Pointe Bulabemba, between Lighted Bouy No. 12 and Lighted Bouy No. 16. Cargo operations are carried out continuously by large tanker barges. The current in the vicinity of this roadstead sets seaward at 4 to 5 knots. It is reported that the pilots consider the best and safest anchorage to be near to Lighted Bouy No. 16, but the transit time for barges is considerably longer and delays may result. During the wet season, the current may increase and vessels should have their engines available at all times. Pilots are not always available for this anchorage, but experienced officers from the oil refinery will assist vessels in berthing, if requested. Vessels generally depart without the services of a pilot.

A detailed description of the islands and banks of the river cannot be provided, as the channels are constantly changing, especially during the wet season which starts in October.

4.37 Between Pointe Bulabemba (6°03'S., 12°26'E.) and Ponta da Quissanga, 13 miles ENE, the banks of the river are formed by alluvial deposits and are covered with a dense growth of palms and giant mangroves. Some of the latter vegetation grows to considerable size. One species reaches heights of over 30m and has a straight stem which is supported by an arch of roots rising up to 6m from the ground. The spaces between these giant mangroves are usually filled by various smaller trees.

The countryside near the river is low and swampy, but low ranges of hills rise some distance inland on either side. The hills are 60 to 150m high and are covered with grass and occasional patches of trees.

Canal do Porto Rico, entered 4 miles SE of Pointe Bulabemba, is obstructed by sandbanks and a shallow bar fronts its entrance. The settlement of Cafumbila is situated 1.5 miles ENE of the entrance.

Quissanga Light (6°02'S., 12°37'E.) is shown from a structure, 8m high, standing on the N side of Ilha da Quissanga, 1.5 miles NE of the W end of the island. Ponta da Quissanga is located at the NE end of Ilha da Quissanga. The countryside in this vicinity consists of one huge swamp which is intersected by numerous creeks. Giant mangroves stand on the banks of these creeks. Above Ponta Quissanga, this dense

vegetation tends to disappear and its place is taken by low banks of coarse hippopotamus grass.

Anchorage.—Anchorage can be taken, in a depth of 11m, to the W of the entrance to Canal do Porto Rico. However, care should be taken as depths of 9m lie close inshore of this roadstead and the bottom shoals very rapidly. A strong current sets at this anchorage and rough water is often experienced when the afternoon sea breeze is blowing, but not as much as on the N side of the river. Anchorage can also be taken, in a depth of 11m, off the settlement of Cafumbila. It was reported (1973) that these two anchorages were unsatisfactory.

Above Ponta da Quissanga, the Congo River widens and is obstructed by numerous islands and banks. Several channels lead between these obstructions, but only one main fairway is kept open for shipping by dredging. The islands are low and covered with grass and bushes which are almost level with the water. They are intersected by creeks and fringed by drying banks. Crocodiles are particularly numerous in this part of the river and grow up to 9m in length.

4.38 Pedra do Feitco (5°55'S., 12°58'E.), formed by the termination of a ridge of ironstone, projects boldly into the river from the edge of a grassy plain. A shallow rock lies about 200m N of the point. The village of Quissacala, with an airfield, is situated 1 mile S of the point.

It is reported (1995) that a military tower stands near the point.

Between Pedra do Feitco and Ile des Princes, 9 miles ENE, the character of the countryside changes. The low, swampy land is replaced by hills, some of which rise to heights of over 150m.

After passing Pedra do Feitco, a very strong current, with numerous eddies and whirlpools, is often experienced. Vessels tend to be set away from the S side of the river due to the volume of water flowing W through the channel leading S of Ile Selonga.

Several lighted ranges indicate the fairway in this part of the river. Ile Selonga (5°53'N., 13°02'E.) is low and grassy. Ile Sacra Ambaka (Mebaca), lying close E of Ile Selonga, is only just above the level of the river, except near its NE end, which is surmounted by a wooded hill, 74m high. A 2,000m measured distance lies N of these two islands and is indicated by three pairs of beacons. It was reported (1982) that most of these beacons were missing.

Fingal's Shield, a conspicuous granite monolith, stands near the summit of a hill, 150m high, which rises 2.3 miles NW of the W end of Ile Selonga.

Fort Shinkakasa, situated 2 miles E of Fingal's Shield, stands 41m above the river. Large pythons are frequently found in this vicinity. The town of Boma stands 1 mile E of this fort.

4.39 Boma (5°51'S., 13°03'E.) ([World Port Index No. 46520](#)) lies on the N side of the Congo River, 50 miles above the river mouth. The town stands in the center of a semicircle of hills and consists of two sections. The business section is situated on the flat ground, close to the river. The residential section is situated about 60m above the river and includes official residences, hospitals, barrack buildings, etc.

Depths—Limitations.—A main quay, 480m long, provides three general cargo and bulk berths and has depths of 7.9 to

9.1m alongside. A current, with a maximum rate of 3 knots, is normally experienced at this quay.

The controlling depths in the river vary and vessels should ascertain the latest information from the authorities. Vessels with drafts of 6.4 to 8.5m draft can transit the river to this port, depending on the season.

Vessels can also anchor off the N side of Ile Sacra Ambaka (Mebaca) in good holding ground. Vessels can load or discharge cargo if necessary with the use of barges.

4.40 Boma to Matadi.—**Ile Rocca** (5°53'S., 13°05'E.), lying E of Ile Sacra Ambaka (Mebaca), rises near its E end to a rocky and wooded hill, 87m high. A shoal extends N from this island and is the only danger lying between Boma and **Ile des Princes** (5°53'S., 13°07'E.). Several lighted ranges indicate the fairway in this part of the river channel.

Above Ile des Princes, the character of the scenery undergoes a change. The river, previously broad and uninteresting, is now confined within narrower limits by high hills on either side. These hills are covered with luxuriant vegetation for some distance.

Although the currents and eddies are stronger in this part of the river than in the lower part, vessels with good speed can reach Matadi without much difficulty.

The S bank of the river between **Ponta Bumbu** (5°53'S., 13°10'E.) and Sango-Bongo rises steeply to hills, 60 to 90m high. Vegetation lies at the foot of these hills, which are generally bare, but a few trees may be seen on the skyline.

Binda (5°51'S., 13°14'E.), a town, stands on the N bank of the river, close W of the mouth of the Riviere Belizi. Ponta Senga is located on the S side of the river, about 2 miles ESE of the town.

Ilot Oscar (5°53'S., 13°18'E.) lies in the middle of the river, 2 miles ESE of Ponta Senga. It is wooded and marked by a light. The main channel passes to the S of this islet. It was reported (1982) that the islet was below-water, but the light structure remained visible.

Sango-Bongo (5°54'S., 13°19'E.) lies in the middle of the river, about 1.7 miles ESE of Ilot Oscar. This rock is marked by a light and dries 0.6m during the dry season. The main channel passes to the N of it.

Ponta Tridente (5°54'S., 13°20'E.), marked by a light, projects from the S side of the river, 1 mile ESE of Sango-Bongo. Les Trois Soeurs, a group of three islets, lies on the N side of the river, opposite this point, and narrows the channel to a width of about 600m. It was reported (1982) that the southernmost islet of the group was below-water.

4.41 Pointe Muzuku (5°54'S., 13°22'E.) is located on the N bank of the river, 1.5 miles E of Ponta Tridente. On the S side of the river, opposite this point, the land rises to several hills which stand 2 to 3 miles inland. These hills are about 300m high and covered with dense vegetation. The intervening countryside is very rough with isolated hills and ridges.

Three small islets lie in the center of the river, E and NE of Pointe Muzuku; a light is shown from the middle islet. Shoal water lies between these islets and the NW bank of the river. Ilot Kongolo lies about 0.2 mile offshore, 1 mile NNE of Pointe Muzuku. A shelf, with depths of less than 5m, extends along the NW bank of the river in the vicinity of this islet.

Ponta Diamants (5°52'S., 13°23'E.) is fronted by Rocha Diamants, a dangerous rocky shoal, which covers at HW. A lighted beacon is situated 0.2 mile NW of this point.

Pointe Luze is located on the N bank of the river, 0.7 mile NE of Ponta Diamants; the town of Ikungulu stands 1 mile E of it.

The town of Noqui is situated on the S side of the river, 2.6 miles E of Pointa Diamants. A light is shown from an elliptical tower on rocks, 2m high, standing on a point near this town. River ferries link Noqui with Soyo and Boma.

The boundary between Zaire and Angola lies close N of Noqui.

4.42 Ango-Ango (5°50'S., 13°26'E.) is situated on the SE side of the Congo River, 1.2 miles N of Noqui. It is used for the discharge of dangerous goods and by vessels not powerful enough to pass through Chaudron d'Enfer (Devil's Cauldron).

A floating pontoon, 61m long, fronts the SE side of the river. It is connected to the shore by two bridges and forms a berth with a depth of 9.1m alongside. Vessels of up to 8,000 dwt and 195m in length can be accommodated. A strong current is normally experienced at this berth. It has rates of 3 to 7 knots, depending on the height of the river. Palm oil can also be loaded at this berth, but oil tankers have priority for berthing. A pier, 150m long, is situated 0.7 mile S of the pontoon and is used for the discharge of dangerous cargo. It is reported that berthing at these facilities is permitted only during daylight hours and vessels must keep their engines available for immediate use.

Pointe Underhill (5°50'S., 13°26'E.) is located on the SE side of the river, 1.2 miles N of Ango-Ango and 1 mile W of Matadi. A telephone line, with a minimum vertical clearance of 40m, spans the river in the vicinity of this point.

It was reported (1995) that a road bridge spans the river at Pointe Underhill. It has a vertical clearance of 53m, which allows for a maximum rise of 8m in the river level, during the rainy season.

The high hills standing on the NW bank of the river, opposite Pointe Underhill, fall 183 to 244m in sheer precipices to the dark and gloomy basin below, which is known as Chaudron d'Enfer (Devil's Cauldron). The river in this vicinity is very deep and the currents are violent. Numerous eddies and heavy whirlpools necessitate special care in steering and a fast speed. Although the current is not very formidable during the dry season, it generally attains rates of 10 to 13 knots, in places, during the wet season.

The river pilots advise that steering for vessels of over 170m in length is extremely difficult within Chaudron d'Enfer and such vessels are almost unmanageable.

Anchorage.—Anchorage is reported to be possible in several places lying between Boma and Matadi. These places are known to the river pilots and local knowledge is necessary. The anchorages are, as follows:

1. **Kinlele** (5°52'S., 13°06'E.), lying on the N side of the river, 2.5 miles above Boma.
2. **Iles des Princes** (5°54'S., 13°08'E.), lying off the SE side of the island.
3. **Bumbu** (5°53'S., 13°09'E.), lying between Ponta Kimongoa and Ponta Bumbu.

4. **Binda** (5°52'S., 13°14'E.).

5. To the N of **Ilot Oscar** (5°53'S., 13°18'E.).

6. **Muzuku** (5°54'S., 13°21'E.), lying on the N side of the river, 1 mile ESE of Les Trois Soeurs.

7. **Diamants** (5°52'S., 13°23'E.), lying on the N side of the river, opposite Ponta Diamants.

8. **Ikungulu** (5°52'S., 13°25'E.), lying on the N side of the river, 1.5 miles W of Noqui. This anchorage is for vessels waiting to berth at Matadi.

9. Off **Ango-Ango** (5°50'S., 13°26'E.), in a depth of 15m.

Caution.—Between Sango-Bongo and Pointe Muzuku, exceptionally strong currents have been experienced.

In the past, vessels generally encountered no whirlpools of sufficient size to render steering difficult below Les Trois Soeurs. However, severe whirlpools were often encountered between Les Trois Soeurs and Matadi. A vessel of 1,320 dwt and 86m in length reported (1947) that it was best to use full helm at once to counteract the slightest tendency to swing, as, if even a small sheer were taken, the current tended to turn the vessel rapidly broadside to the channel.

A vessel of 25,000 dwt and 170m in length reported (1982) that while it was necessary to use the helm at once to counteract the slightest swing, full helm was neither necessary nor desirable, as this tended to overcorrect very quickly before the helm could be removed. The vessels also reported that the pilots preferred to use 10° or less helm in order to maintain a steady course.

4.43 Matadi (5°49'S., 13°27'E.) ([World Port Index No. 46530](#)) lies along the S bank of the Congo River, at the limit of navigation for ocean-going vessels, about 80 miles from the sea. The town is built on the steep and rocky slope of the river bank and is shut in on all sides by high mountains. It is extremely unhealthy in the hot season, although there are now few cases of malarial fever.

Winds—Weather.—Heavy thunderstorms and torrential rains occur during the wet season. Tornadoes are frequent. The prevailing winds are from the W.

Tides—Currents.—Matadi has no perceptible tidal rise, but a seasonal difference of 7m occurs between the high river water level and the low river water level.

In the dry season, the current close inshore is weak. However, it runs strongly during the wet season and sometimes vessels experience considerable difficulty when berthing alongside. The rate of this current varies between 1 knot and 9 knots. At the most downstream part of the quay, the current is particularly strong and sets towards the berths. The current is felt the least at the center berths.

Depths—Limitations.—The port has 1,602m of total main quayage, which provides ten berths. These berths are 143 to 188m long and have depths of 7.9 to 9.8m alongside. Vessels of up to 24,800 dwt, 179m in length, and 8.2m draft can be accommodated. There are facilities for general cargo, bulk, container, and ro-ro vessels.

The controlling depths in the river vary and vessels should ascertain the latest information from the authorities. Vessels with drafts of 6.4 to 8.2m can transit the river, depending on the season.

Caution.—At the most downstream part of the quay, vessels must use care when dropping the anchor to assist in berthing, as deep water lies close alongside.

The Congo River to Luanda

4.44 The coast extending S for many miles from a point 3 miles S of **Ponta da Moita Seca** (6°07'S., 12°16'E.) consists of red cliffs. Inland of these cliffs, a tableland runs parallel to the coast in a continuous double line. This tableland is visible in places from offshore, but has no definite landmarks which can be identified.

An aeronautical light beacon is shown from a conspicuous mast standing about 9 miles SSE of Ponta da Moita Seca.

Caution.—Depths of less than 11m extend up to about 6 miles offshore between Ponta da Moita Seca and Nzeto (Ambrizete), 76 miles SSE. Vessels should exercise care when navigating in this area and keep in depths of over 15m. Rollers often form without warning and frequently break in depths of up to 9m.

Oil exploration and production are being carried out along this coastal area and vessels are warned that numerous platforms, submerged pipelines, and drilling rigs may be encountered. Vessels should exercise care when navigating in this vicinity as many of the associated structures and installations are often moved and are not charted. In addition, numerous wellheads lie within the 100m curve, but are not considered a danger to surface navigation.

4.45 Essungo Marine Terminal (Essungo-Lombo) (6°20'S., 12°14'E.) lies 8 miles offshore, 13 miles S of Ponta da Moita Seca. The terminal consists of a fixed mooring tower, 15m high, situated in a depth of 22m and an SPM loading buoy, moored in a depth of 36m, about 4.5 miles W of it. A submarine pipeline leads E and NE and connects the SPM and the tower to the shore. Vessels of up to 150,000 dwt and 14.3m draft can be handled at the tower; vessels of up to 250,000 dwt and 21.9m draft can be handled at the SPM.

Vessels waiting to berth are requested to anchor 3 miles NW of the SPM and contact Essungo Platform on VHF channel 6 upon arrival. A current usually sets NW at a rate of 1.5 knots in the vicinity of the terminal, but its strength and direction are influenced by the flow of water from the Congo River.

Pilotage.—Pilotage is compulsory. Pilots, who act as mooring masters, will call the ship on VHF channel 11, advising the vessel of any berthing instructions and/or confirming the anchorage position. The pilot boards in the vicinity of the anchorage area. Vessels can only berth during daylight hours, but can leave at any time. Vessels should send an ETA 72 hours, 48 hours, and 24 hours in advance via Lombo and the contact the terminal on VHF channel 6 when within range.

Regulations.—Vessels should maintain a continuous listening watch on VHF channel 11.

Caution.—A restricted area, which may best be seen on the chart, encloses the terminal. Vessels not proceeding to or leaving from the terminal are prohibited from navigating or anchoring without permission within this area.

4.46 The **Rio Lombo** (6°23'S., 12°26'E.) enters the sea 19 miles SSE of Ponta da Moita Seca. A small oil terminal lies 1.5 miles offshore, 6.5 miles SSE of the mouth of this river, and is connected to the coast by a submarine pipeline.

Estrela Oil Field (6°26'S., 12°22'E.), with several platforms, lies 5.5 miles WSW of the mouth of the Rio Lombo.

Bagre Oil Field (6°26'S., 12°16'E.), with one platform, lies about 11.5 miles WSW of the mouth of the Rio Lombo.

Cabeca da Cobra (6°33'S., 12°30'E.), a rounded headland with a rocky base, is located 10 miles SE of the mouth of the Rio Lombo and is surmounted by a moderately high hill. A light is shown from a tower with a dwelling, 13m high, standing on this headland. The village of Lubombe is situated about 1 mile E of the headland.

A bank, with depths of less than 5m, extends up to about 2.3 miles W from Cabeca da Cobra. Baixo de Dentro, a group of shallow rocks, lies on this bank, about 0.7 mile W of the headland. Baixo de Fora, a rocky shoal with a least depth of 4.4m, lies about 3.5 miles WSW of the headland.

Ponta do Quipai, located 8 miles SSE of Cabeca da Cobra, consists of lofty cliffs which are surmounted by shrubs and overlooked by a hill with a round, bare summit. A conspicuous clump of mangroves stands within this point and is visible from a considerable distance offshore.

The mouths of the Rio Lukulo and the Rio Sange lie 1.8 and 4.5 miles, respectively, SE of Ponta do Quipai.

Ponta do Quinzau (6°54'S., 12°45'E.) is located 18 miles SE of Ponta do Quipai. The coast between is fringed by an uninterrupted sandy beach which is backed by rocky cliffs and surmounted by bare, rounded hills. The cliffs in the vicinity of Ponta do Quinzau are about 40m high. A light is shown from a tower with a dwelling, 15m high, standing 0.5 mile N of Ponta do Quinzau. A prominent tower, 50m high, stands about 4 miles inland, 6.5 miles N of the light.

4.47 Lombo East Oil Terminal (6°50'S., 12°22'E.) lies about 23 miles W of Ponta do Quinzau. It consists of several platforms and an SBM which is moored in a depth of 37m. Vessels of up to 175,000 dwt can be handled. Vessels should anchor, in a depth of 40m, about 3 miles WNW of the SBM. Pilotage is compulsory. Pilots, who act as mooring masters, can be contracted by VHF and board in the vicinity of the anchorage. Vessels should send an ETA 7 days in advance to the operators (Texaco Angola) with confirmation messages sent 72 hours, 48 hours, and 24 hours before arrival. They should then contact the terminal when within VHF range. Vessels only berth during daylight, but can leave at any time.

Caution.—Vessels not proceeding to or leaving from the terminal are prohibited from approaching within 2 miles of it without prior permission.

4.48 Palanca Terminal (6°57'S., 12°24'E.) lies about 22 miles WSW of Ponta do Quinzau. It consists of several production platforms, two SBMs, and a 270,000 dwt storage tanker which is permanently moored in a depth of 42m. Vessels of between 40,000 and 280,000 dwt can be handled and generally moor bow to bow with the storage tanker. Vessels should anchor, in depths of 40 to 43m, sand and good holding ground, within an area lying 3.8 miles NW of the terminal. The swells in the vicinity of the terminal are predominantly from

the SSW, with heights of 1.5 to 2.5m. They are strongest from May to October and reach a maximum 2 to 3 days before spring tides.

Pilotage.—Pilotage is compulsory. Pilots, who act as mooring masters, can be contacted by VHF and board in the vicinity of the anchorage area. They remain on board during the entire stay. Vessels should send an ETA 72 hours, 48 hours, and 24 hours in advance and then contact the terminal when within VHF range. Vessels only berth between 0700 and 1500 hours, but can leave at any time.

Caution.—Vessels not proceeding to or leaving from the terminal are prohibited from approaching within 1 mile of the installations without prior permission.

Pacassa Oil Field (7°08'S., 12°26'E.), consisting of several platforms, lies 12 miles SSE of Palanca Terminal and is connected to it by a submarine pipeline. Bufalo Oil Field, with one platform (1988), lies E and adjacent to Pacassa Oil Field.

4.49 The Rio Lucunga (6°57'S., 12°48'E.) flows into the sea, 4.5 miles SE of Ponta do Quinzau. The mouth of this river is indicated by several clumps of trees standing close to the beach. Several white factory buildings are situated at Mucula, 0.5 mile SE of the mouth.

A bank, with depths of less than 8m, lies about 3 miles offshore, SW of the river mouth. Enseada de Mucula, a slight indentation, lies S of the mouth of the river. Vessels with local knowledge can approach this indentation and obtain anchorage, in a depth of 6m, off the factory buildings.

The coast extending up to about 7 miles S from the mouth of the Rio Lucunga is bordered by a sandy beach. Between the S end of this beach and the Rio M'bridge, 8 miles S, it consists of low, rocky cliffs which are intersected by ravines. These ravines are of a yellowish color and contrast with the blue tint of the sea and the green tint of the inland countryside.

4.50 The Rio M'bridge (Rio Mebridge) (7°12'S., 12°51'E.), which is used only by local craft, can easily be recognized by Ponta Palmas, its N entrance point. This point is wooded and the dark hue of the trees contrasts strongly with the yellowish tint of the cliffs on the S bank of the river. The river mouth is fronted by breakers which extend up to 0.3 mile seaward. The land to the S of the entrance is formed by low cliffs, which are surmounted in a few places by thick clumps of trees. A range of hills stands inland of the river mouth.

Baia de Ambrizete (Baia de Nzeto) (7°14'S., 12°51'E.), a slight indentation, lies between the Rio M'bridge and a bluff, 3.5 miles S. This latter bluff rises in a high and almost sheer cliff which is covered with herbage. From the S, the bluff appears as a projecting point and is very prominent. Within the bluff stands, a range of hills. The S and highest hill of this range has a conspicuous flat top which can be easily recognized from a considerable distance.

A light (Ambrizete) is shown from a tower, 20m high, standing on the bluff. A disused light structure and a small white dwelling are situated close N and close W, respectively, of the light.

Nzeto (Ambrizete) (7°14'S., 12°51'E.), a small town, stands at the head of the indentation, 1.5 miles S of the Rio M'bridge. It is situated on the rising ground, which stretches toward the

bluff, and is fronted by a small breakwater. Two prominent radio masts stand close together in the town.

Depths of less than 5m lie up to about 1 mile offshore between the town and the bluff and vessels should give this area a wide berth. Anchorage can be taken in a depth of 9m, sand and mud, about 2.5 miles SW of the mouth of the Rio M'bridge, but only vessels with local knowledge should use this roadstead. The bottom changes to rocks and stones to the S of the anchorage and the depths shoal rapidly. A constant swell is experienced at the anchorage and rollers are reported to frequently break in a depth of 9m off the town.

4.51 Kiabo Marine Terminal (7°20'S., 12°35'E.) lies 17 miles WSW of Nzeto (Ambrizete) and consists of a floating production and storage vessel, moored in a depth of 76m. Vessels of up to 150,000 dwt can be accommodated with no restriction for draft. Generally, vessels berth and leave during daylight hours only. Pilotage is compulsory. Pilots, who act as mooring masters, can be contacted by VHF and board between 2.5 and 3 miles NW of the terminal. Vessels should send an ETA through the operator 72 hours in advance and confirmation messages 48 hours and 24 hours before arrival. Additional notification messages should be sent if the ETA has changed by more than 6 hours.

Caution.—A restricted area, which may best be seen on the chart, encloses the terminal. Vessels not proceeding to or leaving from the terminal are prohibited from entering this area without prior permission.

Baia de Juma (7°20'S., 12°54'E.), a slight indentation in the coast, extends SE for 5 miles from the S entrance point of Baia de Ambrizete. The Rio Ambrizete, with a mouth barred by sand, flows into the N part of this indentation, about 3 miles SE of Nzeto (Ambrizete). The S part of the indentation is fronted, for about 3 miles, by a sandy beach. Anchorage, with local knowledge, can be taken in this indentation, but the bottom is very foul and there is a heavy swell.

The coast extending SSE from Baia de Juma is bold and cliffy with occasional sandy coves. The high white cliffs are surmounted by trees.

4.52 Ponta da Musserra (7°36'S., 13°00'E.), located 22 miles SSE of Nzeto (Ambrizete), forms the S entrance point of a small bay. The shores of the bay are low, but high cliffs rise abruptly at the S entrance point and are surmounted by a prominent cross. Several factories are situated at Musserra, near this bay.

The bottom fronting the bay is rocky and foul in places. Vessels without local knowledge should not anchor in depths of less than 16m or less than about 2 miles offshore.

The Ararat Hills rise inland, close S of Ponta da Musserra, and stand parallel to the coast for 5 to 6 miles. They attain heights of up to 200m and are the highest peaks between the Congo River and Luanda. These hills are of basaltic formation, steep, and mostly bare except for a little brushwood. They are brown and arid in appearance and are covered with superb masses of pink-colored granite, which rise in picturesque forms.

A very conspicuous mass of granite surmounts the summit of one of these hills, which rises about 5 miles inland, 28 miles

SSE of Nzeto (Ambrizete). This mass is about 18m high and is in the form of a pillar.

The mouth of the Rio Sembo (Rio Quicembo) lies 8.7 miles SSE of Ponta da Musserra. This river is insignificant and, except between January and June, its entrance is obstructed by a barrier of sand. Two villages are situated on the S slope of Ararat Hills. The southernmost village stands abreast a sandy beach, 2 miles NNW of the mouth of the Rio Sembo. It is conspicuous from seaward, as the conical huts are much lighter in color than the dark trees which form the background.

Ponta Two Trees, located 2 miles NNW of the Rio Sembo, is a low, sloping, and grassy point. Two conspicuous isolated palm trees are reported to stand on this point.

The N entrance point of the Rio Sembo is low and wooded. The bluff, which forms the S entrance point, consists of a perpendicular whitish cliff, about 1 mile long. A sandy coast extends from this cliff to the mouth of the Rio Loge, 5 miles SSE. Vessels with local knowledge can obtain good anchorage off the Rio Sembo.

4.53 Ponta do Ambriz (7°50'S., 13°06'E.), located 15 miles SSE of Ponta da Musserra, is formed by a high, white, and perpendicular cliff. This point, which is fringed by foul ground, assumes the appearance of being detached, especially in misty weather, as the land extending to the N of it is low. A light is shown from a tower, 14m high, standing 0.3 mile ENE of the point and a disused light structure is situated near it. Two radio masts, about 50m high, stand close SSE of the light.

A narrow and rocky bank, with a least depth of 3m, extends up to about 1 mile NNW of Ponta do Ambriz and is marked by a lighted buoy.

Baia do Ambriz, a slight indentation in the coast, lies between Ponta do Ambriz and Ponta Loge, 3 miles NNW. The latter point is low, sandy, and fringed by a bank on which the sea always breaks. It was reported (1989) that a light was shown from a tank standing on Ponta Loge.

The Rio Loge flows into the head of this indentation, 1.5 miles N of Ponta do Ambriz. The mouth of the river, which is marked by several unusually light-green lofty trees, is blocked by a bar; only small boats can cross it. Within the entrance, there are depths of over 3m and the river is reported to be navigable by small craft almost to its source, about 180 miles upstream. A rock, awash, lies about 0.3 mile off the head of the indentation.

Porto do Ambriz (7°50'S., 13°06'E.) lies at the S end of Baia do Ambriz. This small harbor consists of a basin, which has a dredged depth of 5m and a quay along its W side. It is approached through a channel, 0.5 mile long, which is dredged to a depth of 5m over a width of about 90m. This channel is marked by buoys and indicated by a lighted range. Pilotage is compulsory. Pilots can be contacted through Petromar Ambriz Port Radio Station and are available during daylight hours only. The best anchorage off the harbor is in a depth of 10m, to the NE of the light shown from near Ponta do Ambriz. The harbor is mostly used by fishing boats and vessels servicing the offshore oil and gas installations.

Caution.—Vessels should not enter the approach channel without permission. Passage through the approach channel is difficult when the swell, which usually runs at right angles to the fairway, is accompanied by a cross wind.

4.54 Enseado do Capulo (7°59'S., 13°11'E.), lying 9.5 miles SSE of Ponta do Ambriz, is 1.5 miles wide between its rocky entrance points. The village of Capulo stands at the head of this bay near the Rio Uezo, a small stream. Monte Bamba, with a rounded summit and sloping sides, rises 2 miles inland, E of the bay. This hill appears detached from the others in the vicinity when seen from the W.

The coast in this vicinity presents an arid appearance, with an occasional clump of trees. A rocky shoal, with a least depth of 7m, lies about 0.5 mile off the N entrance point of the bay. A rocky bank, with depths of less than 11m, extends up to about 0.5 mile WNW from the S entrance point. Vessels with local knowledge can anchor, in a depth of 11m, sand and shells, about 0.7 mile NNW of the S entrance point.

The coast between Enseada do Capulo and Enseada do Mussulo, 16 miles SSE, consists of steep white cliffs and is bordered by a reef which extends up to about 1 mile offshore. The Rio Onzo flows into Enseada do Mussulo; its mouth is indicated by a deep fissure in the cliffs which forms a valley filled with a mass of dark verdure. A range of hills, irregular in outline, runs parallel with this stretch of coast, a short distance inland. In addition, the peaks of the Mussulo Hills rise 10 to 11 miles inland and are conspicuous.

The village of Mussulo Grande, with some factories near it, is situated on the shore of Enseada do Mussulo and is visible from seaward. Anchorage can be taken by vessels with local knowledge, in a depth of 15m, within this bay.

The coast extending SSE for 8 miles from Enseada do Mussulo is cliffy. The mouth of the Rio Lifune lies 13 miles SSE of the bay and can be distinguished by masses of lofty trees which line the coast in this vicinity and appear in contrast to the red color of the land.



Ponta do Dande Light

4.55 Ponta do Dande (8°28'S., 13°21'E.) is located 4 miles SW of Ponta do Catumbo, the S entrance point of the Rio Lifune. This point is formed by the sloping base of some steep cliffs which front a bold headland. These cliffs, which appear vertical from the SW, extend E for 1.5 miles from the point and

end in a sheer bluff at the mouth of the Rio Dande. A light is shown from a prominent tower standing on Ponta do Dande and a radio mast, 49m high, is situated 1.2 miles E of it.

Baia do Dande lies between Ponta do Catumbo and Ponta do Dande. A rocky shoal, with a least depth of 4m, lies about 1.7 miles NNE of Ponta do Dande. The coastal bank, with depths of less than 5m, extends up to about 1 mile offshore at the head and in the N part of the bay. Anchorage can be taken, in a depth of 10m, about 0.5 mile N of Ponta do Dande.

Baia do Bengo is entered between Ponta Spilimberta, located 7.2 miles SSE of Ponta do Dande, and Ponta das Lagostas, 11 miles SSW. The coast between Ponta do Dande and Ponta Spilimberta consists of high, red and white cliffs. The town and fort of Cacuaco are situated on the S shore of the bay. They stand at the termination of some red and white cliffs, which contrast with the low land at the head of the bay.

4.56 Ponta das Lagostas (8°45'S., 13°18'E.) is formed by a perpendicular cliff of yellowish tint which is surmounted by trees. A light is shown from a tower, 14m high, standing on this point. The light tower is partly hidden by trees; a chimney stands 1 mile ESE of it.

It was reported (1985) that a T-shaped cement loading jetty, with dolphins, extended 0.5 mile NNW from a point on the S shore of the bay, about 0.8 mile ESE of Ponta das Lagostas. The jetty has a 210m long head with a depth of 14.3m alongside.

Caution.—The navigation light shown from Ponta das Lagostas has been reported to be difficult to distinguish from other lights in the vicinity.



Ponta das Lagostas Light

Luanda (8°48'S., 13°15'E.)

[World Port Index No. 46560](#)

4.57 The port of Luanda, one of the finest harbors on the W coast of Africa, is entered between Ponta das Lagostas and Ponta da Ilha, 2.4 miles WSW. The latter point is the NE extremity of Ilha de Luanda (Ilha do Cabo), a low and narrow island which shelters the seaward side of the port. This island,

which is about 3.5 miles long, is connected to the mainland by a causeway at its SW end.

Luanda, the capital of Angola, stands along the S part of the harbor and extends toward the interior on the adjacent plateau.

Winds—Weather.—Winds from the WNW, WSW, and SE usually predominate. Winds occasionally blow from the N, but very rarely from the NE quadrant. During the day, the wind generally effects a complete rotation of direction. In the morning, the wind is weak and usually from the S and E quadrants. In the afternoon, it then blows from the N and W, becoming fresh. At nightfall, the wind weakens and blows from the W and S quadrants.

During the period between December and May, tropical disturbances of short duration may occur, although rarely. These disturbances may consist of gusts from NNE and ESE, with velocities of up to about 50 knots.

Precipitation occurs from September to May in the form of showers. March and April are the hottest months and also the months with the greatest rainfall. These showers are generally preceded by gusty winds from the E. Thunderstorms occur frequently in March and April, but are not very frequent during the remaining months. During the dry season, no rain occurs, but morning fog may appear. The fog forms particularly during June, July, and August, but rarely causes any difficulty.

Tides—Currents.—The tide rises about 1.8m at springs and 1.4m at neaps.

In the vicinity of Luanda, the current has been reported to set E, or directly onto the coast, at a rate of about 0.7 knot. Although this current is not constant, it is by no means infrequent.

Off Luanda, the characteristic West African swell is felt throughout the year, but it is usually strongest from April to September. The interior of the harbor is well-protected and always calm.

Depths—Limitations.—A shoal bank, with depths of less than 10m, extends up to about 0.3 mile seaward from the NW side of Ilha de Luanda. This bank, which is steep-to at its NE end, also extends up to about 0.6 mile NE from the NE extremity of the island. The harbor entrance has depths of 15 to 30m.

The principal commercial pier and wharf are situated in the SW part of the harbor. They provide 2,020m of main quayage, with depths of 8.5 to 11m alongside, which affords ten berths for ocean-going vessels. The port has facilities for general cargo, ro-ro, bulk, tanker, and container vessels. Vessels of up to 305m in length and 10.3m draft can be accommodated alongside.

An offshore oil and gas berth, consisting of several mooring buoys, is situated in the E part of the harbor. A submarine pipeline leads ESE and connects this berth to the shore. Vessels of up to 230m in length and 13m draft can be accommodated.

A naval installation is situated at the SW side of the harbor. It is fronted by a wharf, 295m long, which is reported to have a depth of 11m alongside.

Aspect.—A light is shown from a framework tower on a building, 11m high, standing at the NE end of Ilha de Luanda (Ilha do Cabo). A lighted buoy is moored about 0.9 mile NE of this light. It has been reported (1998) that the light has been extinguished.

An aeronautical radiobeacon is situated 2 miles S of Ponta das Lagostas.

A prominent oil refinery and a cement factory are situated 1.3 miles SSW and 1 mile ESE, respectively, of Ponta das Lagostas. Chestnut-yellow smoke can normally be sighted from seaward rising in the vicinity of the cement factory.

Fortaleza de Sao Miguel stands in the SW part of the harbor. This fort is conspicuous, yellow in color, and floodlit at night. An observatory, with a square tower, and a yellow-colored conspicuous hospital stand about 0.4 mile S of the fort. An airport is situated 2.7 miles SSE of the fort.

A bank building, one of the highest buildings of the city, stands 0.6 mile ESE of the fort. Its sign, which is illuminated until about 0100 hours, forms an excellent landmark and has been reported to be visible from more than 25 miles.

Fortaleza de Sao Pedro do Barra stands on the E side of the harbor, 1.4 miles SW of Ponta das Lagostas. This fort is low, formed by a cutting in the solid cliffs, and has a double tier of gun ports. A prominent monument is situated near the shore, 0.6 mile NNE of the fort. A prominent chimney stands 0.8 mile S of the fort.

Several stranded wrecks lie along the shores of the harbor and may best be seen on the chart.

Pilotage.—Pilotage is compulsory for vessels over 300 grt and available from 0800 to 2200 hours. Pilots can be contacted by VHF and generally board about 1 mile S of Lighted Buoy No. 1. Vessels should send an ETA 72 hours and 6 hours in advance.

It was reported (1995) that vessels are berthed during daylight hours only.

Anchorage.—A designated anchorage area for waiting vessels, about 1 mile square, has been established. It has depths of 24 to 31m and lies centered 1.3 miles NNW of Ponta das Lagostas.

Caution.—Due to some unknown cause, large quantities of dead fish are occasionally washed up on the shoal bank which extends NE from the NE end of Ilha de Luanda.

With high SW winds, the sea breaks over part of Ilha de Luanda and drives quantities of sand into the harbor. In addition, quantities of soil are washed down from the heights during the rainy season. Both of these actions have resulted in the SW part of the harbor becoming very shallow and drying in places at LW.

Prohibited anchorage areas, which may best be seen on the chart, lie in the SW and NE parts of the harbor.

A 1,833.2m measured distance, which may best be seen on the chart, lies on the seaward side of the N part of Ilha de Luanda and is marked by beacons.

Oil and gas exploration is being carried out along this coast and vessels are warned that numerous wellheads, submerged pipelines, drilling rigs, and platforms may be encountered in the approaches to the port. Vessels should exercise care when navigating in this vicinity as many of the associated structures and installations are often moved and are not charted.

Luanda to Lobito

4.58 The coast between Ilha de Luanda and Ponta das Palmeirinhas, 22 miles SW, consists of a low, sandy spit which encloses an extensive, but mostly shallow lagoon.

Ponta do Mussulo (8°52'S., 13°09'E.), located about 5 miles SW of Luanda, is the S entrance point of Barra da Corimba, the mouth of the lagoon. A group of prominent radio masts is situated 3 miles SE of this point. Morro da Cruz rises on the mainland, 6.5 miles SSW of the point. This hill is 54m high and prominent.

Ponta das Palmeirinhas (9°06'S., 13°00'E.) derives its name from the clump of palm trees standing on it. A light is shown from a prominent square tower, 38m high, standing 1.7 miles N of this point.

Enseada do Buraco is entered 4.5 miles NNE of Ponta das Palmeirinhas. This small bay provides anchorage, in a depth of 11m, about 0.6 mile offshore.

The **Rio Cuanza** (9°21'S., 13°09'E.) flows into the sea 16 miles SE of Ponta das Palmeirinhas. This shallow river is of considerable importance and its muddy waters discolor the sea for up to about 10 miles offshore. The river mouth lies close N of a long and sandy spit and is fronted by a bar which is continually changing. The sea frequently breaks right across the bar and it is extremely dangerous for boats. However, small craft, with drafts of 2.4 to 2.7m, can cross the bar at HW and ascend the river for many miles. A smooth sea and local knowledge are necessary.

A conspicuous monument stands on the coast, 2.5 miles NNW of the mouth of the Rio Cuanza. Anchorage can be taken off the river entrance by vessels with local knowledge. Vessels are advised to anchor, in depths of 22 to 27m, about 9 miles offshore or, in a depth of 16m, about 3 miles offshore.

The land extending inland for 40 miles between the Rio Cuanza and the Rio Longa, 58 miles SSE, is a national park. It is reserved for wild animals and has few inhabitants.

The coast between the Rio Cuanza and Cabo Ledo, 20 miles S, is bordered by red cliffs of moderate height.

Caution.—Oil and gas exploration is being carried out along this stretch of the coast and vessels are warned that numerous wellheads, submerged pipelines, drilling rigs, and platforms may be encountered up to about 10 miles offshore. Vessels should exercise care when navigating in this vicinity as many of the associated structures and installations are often moved and are not charted.

4.59 Baia do Suto (Enseada de Suto) (9°38'S., 13°13'E.) is entered between Ponta do Sangano and Cabo Ledo, 7 miles S. A rock, awash, lies about 1.2 miles WNW of Ponta do Sangano and Baixo do Suto, with a least depth of 5.3m, lies about 2.7 miles NNE of Cabo Ledo.

A small and sandy cove lies in the S part of the bay; the Rio Suto flows into its head. This river has a good flow in the rainy season, but its mouth is often choked with sand. Vessels with local knowledge may obtain anchorage, sheltered from SW winds, in a depth of 10m, about 0.9 mile NE of Cabo Ledo. However, a strong swell sets around the cape at times and causes vessels to roll heavily.

4.60 Cabo Ledo (9°41'S., 13°12'E.), a high and black promontory, is rugged and covered with trees. This cape is easily recognized from seaward as it is a salient point and presents the appearance of a truncated cone. A light is shown from a stone tower with dwellings, 12m high, standing on the

summit of the cape. A radio tower, 50m high, stands 7 miles ENE of the light.

The coast between Cabo Ledo and Cabo de Sao Braz, 19 miles SSE, is bordered by remarkable white cliffs. The latter cape is steep-to and Enseada Sao Braz (Baia de Sao Braz) lies close N of it. A sandy spit encloses a salt water lagoon in the S part of this bay and a large swamp lies at the foot of the hills rising close S of the bay. Anchorage can be taken by vessels with local knowledge, in depths of 6 to 14m, within the bay.

The coast between Cabo de Sao Braz and Ponta do Longa, 15 miles SE, is backed by a high tableland. The latter point is formed by a bluff headland which is covered with brushwood.

Cabo das Tres Pontas (10°23'S., 13°32'E.), a projecting headland, is located 13.5 miles SSE of Ponta do Longa. A light is shown from a tower with a dwelling, 14m high, standing on this cape.

A bay lies between Ponta do Longa and the cape; the Rio Longa empties into the head. Except at the mouth of the river, which is thickly wooded, the shores of the bay consist of high, unbroken cliffs.

4.61 Ponta do Morro (10°45'S., 13°43'E.), located 25 miles SSE of Cabo das Tres Pontas, is very high, with perpendicular cliffs on its seaward side. This point forms one of the most remarkable headlands along this part of the coast and its summit is covered with tall cactus trees.

Morro Cambiri, a headland, is located 2.3 miles NE of Ponta do Morro. It is 65m high and marked by a light. A monument stands on the coast, 0.3 mile NNE of the headland. An airfield lies 1 mile NE of the headland; an aeronautical radiobeacon is situated in its vicinity.

Porto Amboim (Benguela Velha) (10°44'S., 13°45'E.) ([World Port Index No. 46570](#)) lies close NE of Morro Cambiri. Vessels anchor and work cargo in the roadstead. A jetty, 123m long, fronts the town and is used by lighters.

Anchorage can be taken in convenient depths, but the roadstead is somewhat exposed to the SW swell. Good anchorage can be taken, in a depth of 18m, about 0.3 mile NNW of the light on Morro Cambiri. Good anchorage can also be taken, in a depth of 22m, mud, WNW of Morro Cambiri. Local knowledge is advised.

Caution.—A wreck, with a least depth of 3m, lies about 0.4 mile WSW of Morro Cambiri.

Several piers, which carry suction pipes, extend seaward from the shore between 0.5 mile and 2 miles NE of Morro Cambiri. The pipes convey fish from vessels moored at the pierheads to several fishmeal factories situated on the shore.

4.62 The Rio Cuvo (10°52'S., 13°48'E.) flows into the sea through a low, wooded plain, 8 miles SE of Ponta do Morro. The cliffy nature of the coast along this stretch disappears in the vicinity of the river mouth. However, the cliffs reappear to the S of the river entrance and continue, almost without interruption, for 90 miles to Porto do Lobito. Several yellow patches, the result of landslides, can be seen in these cliffs.

The summits of several high mountains, which rise inland, may be observed during clear weather, especially in December, January, and February.

Novo Redondo (Gunza-Kabolo) (Sumbe) (11°12'S., 13°50'E.) ([World Port Index No. 46580](#)) lies 27 miles SSE of

Ponta do Morro. The town is partially obscured by heights which extend from the beach and on which two conspicuous water tanks stand. A main light is shown from a column, 7m high, standing near a white dwelling on the N corner of a prominent fort. An airfield lies 2 miles NNE of the light and an aeronautical radiobeacon is situated in its vicinity. Two radio masts stand 0.5 mile SSE of the fort.

The Rio Gunza empties into the sea close N of the town. For 5 or 6 months of the year, this river is absorbed by the porous sand through which it flows.

A pier, used by lighters, fronts the shore near the light. Vessels anchor and work cargo in the roadstead. Depths of less than 5m extend up to about 1 mile offshore and Baixo do Inconcon, with a least depth of 0.6m, lies about 0.2 mile offshore, between 0.5 and 0.9 mile SSW of the light. Anchorage can be taken, in depths of 7 to 13m, sand, about 1.8 miles W of the fort, but this roadstead is exposed to a predominant SW swell.

4.63 Enseada do Quicombo (Baia de Quicombo) (11°18'S., 13°49'E.), into which the Rio Cubai flows, lies 7.5 miles S of Novo Redondo. The small town of Quicombo, which stands along the S part of the bay, may be recognized from the N and W by a remarkable zigzag road. This conspicuous road ascends from the back of the town and leads over the mountains behind it.

The S entrance point of the bay is formed by a red bluff. Baixo de Salvador Correia, a rocky shoal, extends up to about 0.7 mile NW of the point. This shoal has a least depth of 3.8m and the sea frequently breaks on it.

The town is fronted by a small wharf and anchorage can be taken, in a depth of 9m, sand and mud, NW of it. The bay affords good anchorage, except during the time of the heaviest rollers (December to August).

Ponta Vermelha, located 2.5 miles SSW of the S entrance point of the bay, may be recognized by patches of red marking its SW face. A light is shown from a tower, 14m high, standing on this point.

An isolated depth of 18m was reported (1984) to lie about 17.5 miles W of the light.

4.64 Cabeça da Baleia (11°35'S., 13°46'E.), located 15.5 miles S of Enseada do Quicombo, is a dark-colored point which projects about 1 mile from the coast. It may be identified by a tableland which rises near the beach, 2 miles to the N.

The coast between Cabeça da Baleia and the mouth of the Rio Balombo, 23 miles S, consists of high and perpendicular chalky cliffs, which may be seen from a considerable distance to seaward in the rays of the afternoon sun.

Baia dos Pombos, lying close S of Cabeça da Baleia, is a slight indentation in the coast. It has a fine sandy beach and terminates to the S in a rocky point. This indentation is about 5 miles wide and the sea breaks with considerable violence along its shores.

The mouth of the Rio Eval (Rio Tapado) lies 12 miles S of Cabeça da Baleia and may be identified by some vegetation rising in a somewhat steep ravine. Anchorage can be taken by vessels with local knowledge, in a depth of 15m, about 1 mile W of the river mouth.

Egito Praia (11°58'S., 13°46'E.) stands at the mouth of the Rio Balombo, 11 miles SSW of the mouth of the Rio Eval.

This small town may be identified by a large white house, which stands half way up the cliff of a deep gorge. In addition, a conspicuous cliff, in the shape of a wedge, rises close S of the river entrance. Several houses are situated close to the beach at the bottom of the gorge and some factories stand in the town. Good anchorage can be taken by vessels with local knowledge, in a depth of 12m, about 1.5 miles offshore.

Ponta do Egito (12°00'S., 13°43'E.) is located 3 miles SW of Egito Praia. A light is shown from a tower, 9m high, standing on this point.

Enseada do Binge, an indentation in the coast, lies between a point, located 5 miles SSW of Ponta do Egito, and Ponta do Binge, 5 miles SSW. A large village, fronted by a sandy beach, is situated in the middle of this indentation. Landing can be effected along the shore of the indentation by boats, even though the sea breaks on the beach with considerable force.

Caution.—In some places along this stretch of coast, depths of less than 13m have been found lying up to 3 miles offshore.

Lobito (12°20'S., 13°34'E.)

World Port Index No. 46590

4.65 The port of Lobito, which resembles by its configuration the port of Luanda, is an excellent and secure natural harbor. It is also the terminus of the railway which connects with Zaire and Zambia.

The harbor is sheltered on its NW side by a narrow and sandy spit which extends NE for about 3 miles to Ponta da Restinga, its NE extremity. Numerous bungalows and buildings are situated along this spit.

Winds—Weather.—Throughout the year, sea breezes predominate during the afternoon and vary between SW and NW. At other hours of the day, the winds are variable and it is generally calm at night. Precipitation, usually in the form of showers, occurs from November to April, with the months of March and April having the most rainfall. Precipitation is weak from November to January and there is practically no rain from May to October. Thunderstorms are rare and fog is infrequent.

Tides—Currents.—The tides rise about 1.7m at springs and 1.3m at neaps.

The tidal currents in the vicinity of the harbor are negligible. A swell from the WSW predominates outside the port, but the harbor is always calm.

Depths—Limitations.—The main commercial berthage consists of Quay No. 1, which extends along the SE side of the sandy spit, in the SW part of the harbor and Quay No. 2, which extends along the head of the harbor.

Quay No. 1 is 570m long and has a depth of 10.4m alongside. Quay No. 2 is 552m long and has depths of 10.3 to 10.6m alongside.

There are facilities for general cargo, bulk, tanker, passenger, and container vessels. Vessels of up to 275m in length and 10.3m draft can be accommodated.

Aspect.—A light is shown from a framework tower, 11m high, standing on Ponta da Restinga, the NE extremity of the sandy spit. A prominent radio mast is situated 1 mile SW of this light. The government residence, with a large conspicuous tower, and a conspicuous church tower are situated 1 mile SW of the radio mast.

Buoys, which mark the entrance to the fairway, are moored about 300m E and 0.3 mile E of Ponta da Restinga. A main light (Lobito) is shown from a tower with a dwelling, 15m high, standing on the top of the mainland cliffs, 0.7 mile E of Ponta da Restinga.

A cement factory, with a prominent chimney, is situated 1.5 miles SW of the light and a radio tower stands 0.4 mile S of it. It has been reported that the yellowish-brown smoke rising from this chimney can be seen from a considerable distance.

Several prominent oil tanks stand on a small area of reclaimed land lying 0.4 mile SW of the cement factory. Several conspicuous port installations, including silos, stand in the SW part of the harbor. The head of the harbor is occupied by an extensive bank which dries at LW and gives off an offensive odor.

Pilotage.—Pilotage is compulsory within the harbor entrance and is only available during daylight hours. Vessels should send an ETA by radio 24 hours before arrival on weekdays and 48 hours before arrival on weekends. The port can usually be contacted by VHF during daylight hours. The pilot boards between Lighted Buoy No. 4 and Lighted Buoy No. 6.

The maximum speed permitted in the harbor is 8 knots.

Anchorage.—The harbor provides sheltered and calm anchorage with good holding ground. The designated anchorage area, which may best be seen on the chart, lies in the middle of the harbor. It has depths of 14 to 31m and is marked by buoys.

Caution.—The sand spit at the NW side of the harbor is reported to be extending NE at a rate of about 30m a year. It was reported (1988) that shoaling extended up to about 200m ESE from Ponta da Restinga and vessels should give this point a wide berth.

Anchorage is prohibited within the harbor between the N side of the designated anchorage area and the sandy spit in order to provide free passage for vessels proceeding to the quays.

Several wrecks lie within the harbor and may best be seen on the chart.

It was reported (1994) that numerous fishing vessels may be moored in the N part of the designated anchorage area.

A measured 1 mile distance, which may best be seen on the chart, lies on the seaward side of the N part of the sandy spit, and is marked by beacons.

The buoys marking the seaward entrance of the harbor fairway are often moved and should not be relied upon.

Lobito to Namibe

4.66 The coast between Ponta da Restinga and Baía de Benguela, 18 miles SSW, is low and wooded with few landmarks.

The **Rio Catumbela** (12°27'S., 13°29'E.) flows into the sea 10 miles SW of Ponta da Restinga. Its mouth may be identified from the W by a remarkable niche in the hills, located 4 miles inland, through which the river flows. The town of Catumbela stands close W of this niche. Two hills, each 150m high, rise on the S bank of the river, about 0.3 mile E of the town and 3.5 miles inland. They are both surmounted by old forts, which consist of a long building, with a red roof, surrounded by a

stone wall. When approaching the river, these forts are prominent, but they would probably be mistaken for ordinary dwellings from farther seaward.

Several factories, with tall chimneys, are situated on the N bank of the river, 0.5 mile W of the town, but they are mostly hidden by vegetation.

The river overflows its banks during the rainy season and inundates a large area, but it is no more than a large stream in the dry season.

4.67 Baía de Benguela (12°35'S., 13°24'E.) lies between the mouth of the Rio Cavaco, located 8 miles SW of the Rio Catumbela, and Ponta do Sombreiro, 6.3 miles WSW. The shore of this bay is chiefly composed of a sandy beach. The city of Benguela stands in the NE part of the bay on a marshy plain which is almost inundated during the rainy season (March and April). A lighted range is shown from the vicinity of the city and indicates the anchorage. The front light is shown from a tower, 7m high, standing in front of an old fort; the rear light is shown from the N tower, 12m high, of a church. Vessels can anchor, in a depth of 13m, on this range. Local knowledge is advised as the bay is reported to be obstructed by numerous fish traps. The roadstead is only used by fishing craft and local coasters, as ocean-going vessels now proceed to Lobito.

Ponta do Sombreiro (12°35'S., 13°18'E.) is the N extremity of a promontory. Morro do Sombreiro, a very conspicuous hill, rises close within this point. It is 124m high and has a hat-like appearance. A light is shown from a column, 7m high, standing on this hill.

Caution.—Between Ponta do Sombreiro and **Ponto do Porto** (15°47'S., 11°51'E.), 225 miles SSW, great depths are found close to the coast and anchorage is rendered almost impossible, except within a few sheltered bays. Vessels are advised to maintain a good distance from the shore, as the swell sets toward the coast.

Caution is necessary along this stretch of coast in order to avoid over-estimating the distance from the land due to the light sandy nature of the low-lying foreshore and the extreme haziness of the atmosphere which generally prevails.

The current along the coast to the NE of Ponta das Salinas sets offshore, but between this point and Baía de Equimina, 23 miles SSW, the current sets toward the land and caution should be exercised.

4.68 The coast between Ponta do Sombreiro and Ponta das Vacas, 5 miles WSW, is cliffy and forms several snug coves where boats and small craft can shelter. A prominent water tower stands 1 mile SW of Ponta das Vacas.

Baía Farta lies between Ponta das Vacas and Ponta de Sao Jose, 1.8 miles NW. This latter point is formed by a rounded, sandy tongue. The head of the bay consists of a sandy beach. The village of Baía Farta stands in the SW corner of the bay, near the mouth of a small stream. It is fronted by several small piers which are used by fishing craft. Vessels with local knowledge can obtain excellent anchorage, in a depth of 25m, about 0.6 mile S of Ponta de Sao Jose and about 0.3 mile offshore.

The coast between Ponta de Sao Jose and Ponta das Salinas, 22 miles SW, is steep-to and consists of white, sandy beaches.

The shore is difficult to distinguish until very close as it projects far from the hills inland.

Baía Tenda Grande, a slight indentation, lies 2 miles NE of Ponta das Salinas. A prominent water tower stands in the settlement, which is situated at the head of this indentation.

4.69 Ponta das Salinas (12°50'S., 12°56'E.) is a low, rounded, and sandy point which extends up to about 6 miles W of the hills inland. A light is shown from a conspicuous square tower, 38m high, standing on this point. A dwelling surmounts a sand dune which rises close E of the light.

Ponta Bongue, located 9 miles SSE of Ponta das Salinas, is fringed with rocks; depths of less than 5m lie up to about 0.4 mile N and NW of it. A prominent stone beacon, 2m high, stands on this point.

Ponta Norte and Ponta Sul, each surmounted by a beacon, are located 200m and 400m, respectively, E of Ponta Bongue.

Enseada do Cuio is entered close E of Ponta Bongue. The village of Cuio, fronted by a small pier, stands at the head of this bay; two range beacons are situated on the SE shore. Anchorage within the bay is considered bad as it is exposed to the SW wind and swell.

The coast between Ponta Bongue and Baía da Equimina, 15 miles SW, is steep-to and high. The land is broken at intervals by ravines which run down to the sea and form small bays. Streams flow through these ravines. Generally, the small bays afford temporary shelter in fine weather, but only for vessels with local knowledge.

Baía da Equimina (13°11'S., 12°47'E.) lies between Ponta dos Papeis and Ponta Equimina, 2.5 miles SW. Ponta dos Papeis is fronted by a conspicuous white cliff, 90m high, which extends 2 miles NE. The remains of a sugar plantation are situated at the center of the bay and several of the partially ruined buildings are prominent. A fish factory, with two conspicuous chimneys, stands in the SW corner of the bay. Small vessels with local knowledge can anchor, in a depth of 25m, about 0.3 mile NE of Ponta Equimina. This anchorage is not recommended as it is exposed to the sea breeze and the bottom shoals rapidly.

4.70 Ponta dos Frades (13°13'S., 12°43'E.) is located 6.2 miles SW of Ponta dos Papeis. A light is shown from a tower with dwellings, 9m high, standing 0.4 mile SSE of this point.

Rochas dos Frades, consisting of three rocks, lies on a rocky shelf which extends up to about 0.2 mile NW of Ponta dos Frades. These rocks are 4m high and steep-to.

Baía dos Elefantes (13°13'S., 12°44'E.) is entered between Ponta dos Frades and Ponta do Leste, 2.5 miles ENE. The bay provides the best anchorage along this part of the coast, as it is sheltered from the prevailing winds and from the rollers, which occasionally set in. It is reported that sharks often frequent this bay.

The current off the bay generally sets NNW, but occasionally it sets E and attains a rate of 1.5 knots.

The buildings of an abandoned whaling station, a few huts, and an observatory are situated in the SW corner of the bay. A conspicuous tableland, 233m high, rises near the SW corner of the bay. The names of many British naval vessels, outlined in stone and whitewashed, are situated near the summit on the E side of the tableland and are visible from a considerable

distance to seaward. The land rises to a height of 350m close inland of this tableland.

Although the bay is deep, the depths decrease gradually toward the shore. Good anchorage can be taken, in a depth of 29m, about 0.7 mile NNE of the old whaling station.

4.71 The coast between Ponta dos Frades and Cabo de Santa Maria, 16 miles SW, is backed by granite mountains. The granite is interspersed with patches of alabaster, mica, and quartz, which reflect the rays of the sun like a vast mirror and are visible from a considerable distance.

An indentation, with steep cliffs rising from its shores, lies between Ponta dos Frades and Ponta Choca, 4 miles SW. Baía do Limagem, entered between Ponta Choca and Ponta Limagem, 2.5 miles SSW, is a sandy bay lying at the mouth of a ravine. This bay affords sheltered anchorage to small vessels with local knowledge.

The coast between Ponta Limagem and Ponta Juliana, 3.8 miles SSW, consists of high cliffs which are broken at intervals by ravines. Sandy beaches front the mouths of most of the ravines.

Baía das Tainhas, lying 5 miles SW of Ponta Juliana, has an entrance 0.7 mile wide. It is surrounded by steep cliffs, except for a ravine located at the S end. Good anchorage, sheltered from the prevailing wind and swell, may be taken by large vessels, in a depth of 30m, about 0.3 mile off the sandy beach fronting the head of this bay.

4.72 Cabo de Santa Maria (13°25'S., 12°32'E.), located 16 miles SW of Ponta dos Frades, is of moderate height and is surmounted by a small pillar. This pillar replaces the original one which was placed there by Diego Cam in 1486. A light is shown from a tower with dwellings, 12m high, standing on the cape.

A high and isolated hill, with a flat top, stands 2.5 miles E of the cape and can be seen above it from the S.

Baía de Santa Maria is entered between Cabo de Santa Maria and Arranca Ferro (Ponta Leste), the NW extremity of a promontory, 0.8 mile ENE. Ilheu Liesse (Ilheu dos Passaros), 58m high, lies near the center of the bay. Depths of less than 4m lie between this small island and the head, but elsewhere the bay is deep. Anchorage can be taken, in a depth of 24m, sand and decayed coral, midway between Ilheu Liesse and the W shore of the bay. This anchorage, although sheltered, is only suitable for small vessels.



Cabo de Santa Maria Light

4.73 The coast between Cabo de Santa Maria and Cabo de Santa Marta, 28 miles SSW, consists mostly of granite cliffs which rise steeply from the sea. These cliffs are intersected in a few places by valleys which terminate in broad sandy beaches.

Ilheus do Pina (13°27'S., 12°31'E.), a group of rocks, lies about 2 miles S of Cabo de Santa Maria. The largest rock, which is black and 35m high, lies about 1 mile offshore.

A small islet lies 0.3 mile SW of a point located 4.3 miles S of Cabo de Santa Maria.

The Rio Catara flows into the head of a small bay, 6.5 miles S of Ilheus do Pina. Landing can be effected by surfboats at the S end of this bay. Anchorage can be obtained by vessels with local knowledge, in a depth of 18m, about 450m off this river mouth, but the change from considerable depths to those suitable for anchoring is very sudden.

Enseada do Bonfim (13°49'S., 12°32'E.) is entered 15 miles S of the mouth of the Rio Catara. This bay affords anchorage, in a depth of 29m, about 300m from the shore.

Baía de Santa Marta (13°51'S., 12°30'E.), a large indentation, is entered between Ponta da Bissonga, located 1.5 miles S of Enseada do Bonfim, and Cabo de Santa Marta, 6 miles WSW. Several small bays lie along the shore of this indentation and may be used for shelter by small vessels with local knowledge.

4.74 Cabo de Santa Marta (13°53'S., 12°25'E.) is of moderate elevation and forms a salient feature on this part of the coast. It marks the termination of the high, cliffy coast. A light is shown from a tower with a dwelling, 14m high, standing on this cape.

The mouth of the Rio Carunjamba lies 4.5 miles S of the cape. Ponta do Inamagando, located 7 miles SSW of the river, is the S entrance point of Baía das Matilhas. The Rio Inamagando flows into the head of this bay.

Ponta das Salinas is located 7.8 mile SSW of Ponta do Inamagando and Baía das Salinas is entered close E of it. Anchorage, sheltered from the predominant winds and swell, may be obtained by vessels with local knowledge, in a depth of 16m within this bay.

Ponta Grossa (14°13'S., 12°20'E.), located 2 miles S of Ponta das Salinas, can be identified by the prominent red and yellow composition of the cliffs. A light is shown from a tower, 14m high, standing on this point.

4.75 Ponta dos Mocuandos (14°18'S., 12°22'E.), the SW entrance point of Baía Velho, is located 5 miles SSE of Ponta Grossa. The Rio de Sao Nicolau (Rio Bentiaba) discharges into the bay and a reef, with a least depth of 3m, extends up to about 1.5 miles seaward from the S side of its mouth. Temporary anchorage can be obtained by vessels with local knowledge, in a depth of 9m, within this bay, but it is exposed and offers no shelter.

Monte Velho, 229m high, rises on the S side of Baía Velho, 6 miles from the mouth of the Rio de Sao Nicolau. This hill forms a good landmark as it has a truncated shape and is of a darker color than the coast in the vicinity.

Lageas (14°24'S., 12°21'E.), consisting of two rocks, lies about 1 mile offshore, 6 miles S of Ponta dos Mocuandos. The tallest rock is 2.7m high.

4.76 Ponta Piambo (14°41'S., 12°17'E.) is located 19 miles SSW of Lageas. Except for Enseada do Chapeu, which lies 3 miles S of Lageas, the coast is devoid of landmarks between these rocks and the point. A light is shown from a tower, 18m high, standing on Ponta Piambo.

Ponta de Santa Gertrudes, marked by a beacon, is located 9 miles SSW of Ponta Piambo. Baia do Baba lies close E of this point, but provides no shelter. However, anchorage can be obtained, in a depth of 27m, within this bay.

Baia do Mucuo lies 3.5 miles SSW of Ponta de Santa Gertrudes. Vertical cliffs separate this bay from Baia das Pipas, which is entered close E of Ponta do Gigante and 6.8 miles SSW of Ponta de Santa Gertrudes. Good anchorage can be taken by vessels with local knowledge, in depths of 18 to 24m, within Baia das Pipas.

Enseada do Cherungo, lying 4 miles SSW of Ponta do Gigante, has depths of up to 13m lying 0.5 mile offshore. The Rio Giraul flows into the sea 6.8 miles SSW of Ponta do Gigante.

Ponta do Giraul (15°08'S., 12°07'E.), located 11 miles SSW of Ponta do Gigante, lies on the N side of Baia de Namibe. This point is rounded, rocky, and steep-to. A light is shown from a prominent tower with a dwelling, 24m high, standing on this point.



Ponta do Giraul Light

Namibe (Mocamedes) (15°12'S., 12°09'E.)

World Port Index No. 46610

4.77 Baia de Namibe (Baia de Mocamedes) lies between Ponta do Giraul and Ponta das Barreiras, 4 miles SSW. Namibe, an important fishing harbor, lies in the SE corner of the bay and Porto Saco (Porto Salazar), an ore and tanker terminal, lies in the NE corner of the bay

Winds—Weather.—Sea breezes predominate and are weak during the morning, but fresh in the afternoon. During the night, the wind is usually weak or moderate and from between S and SW. During the dry season, especially from June to August, winds from the E sometimes blow. They are hot, dry, and carry sand which causes uncomfortable weather. The winds are strongest in February and March. Throughout the year, the winds rarely exceed a velocity of 10 knots and never attain a velocity of 30 knots. There is little rain and it is limited to showers. Thunderstorms are rare, but may occur during

March and April. Fog is frequent from May to August and occurs principally at dawn and in the morning. A mist may sometimes remain throughout the day.

Tides—Currents.—The tides rise about 1.7m at springs and 1.4m at neaps.

The tidal currents are variable and weak, but sometimes attain a rate of 1 knot. Strong SW swells are frequent and can occur during any month of the year. They sometimes cause strong surging at Namibe.

Depths—Limitations.—The entrance and middle part of Baia de Namibe have great depths.

Baixo Amelia, with depths of less than 5m, extends up to about 1.3 miles N from Ponta das Barreiras. It consists of sand, stones, and rock and is steep-to at the N end. This shoal is very dangerous and the sea breaks heavily over it at times.

Baixo do Diabo, with depths of less than 5m, extends up to about 0.5 mile W from the S side of the entrance to the Rio Berio, at the head of the bay.

At Porto Saco, the bulk ore quay is 325m long and has a depth of 18m alongside. It is equipped with a conveyor system for loading iron ore and can handle vessels of up to 200,000 dwt and 16.4m draft. The tanker quay is 480m long and has a depth of 18.8m alongside. It can handle vessels of up to 18.5m draft.

At Namibe, the main quay is 875m long. It has 480m of berthage for ocean-going cargo vessels, with a depth of 10.5m alongside; 130m of berthage for coasters, with a depth of 6.1m alongside; and 265m of berthage for fishing vessels, with a depth of 3m alongside. Cargo vessels of up to 10.3m draft can be accommodated.

It was reported (1995) that the quay at Namibe is in poor condition and only has a depth of 8m alongside.

Aspect.—The bay is backed by some ranges of hills which appear very white from seaward when the sun is shining on them. From Ponta do Giraul, the N entrance point, cliffs, 15 to 30m high, extend E and NE for about 1.8 miles.

A conspicuous white water tower stands at the head of Porto Saco, 1.5 miles NE of Ponta do Giraul and several oil tanks, also conspicuous, are situated 0.4 mile NE of it.

The E shore of the bay consists of a sandy beach, near the middle of which is the mouth of the Rio Berio. This river is almost absorbed into the ground before reaching the bay.

Ponta das Barreiras, the S entrance point, is low and sandy. Several prominent fishing installations are situated close E of this point.

Ponta do Noronha is located in the S part of the bay, 3 miles SSE of Ponta do Giraul. It is faced with a perpendicular sandstone cliff, 38m high. Several conspicuous fish oil tanks and buildings stand on the top of the cliff. A light is shown from a square tower standing on this point. A prominent radio mast stands 1.5 miles SE of the light.

The city of Namibe stands in the SE corner of Baia de Namibe and an airport is situated 1 mile SE of it. An aeronautical radiobeacon is reported to be situated in the vicinity of this airport. Fortaleza de Sao Fernando, marked by a light, is situated 1.2 miles ESE of Ponta do Noronha. It stands near the shore in the middle of the city and is conspicuous. The Governor's Palace, a large pink building, is situated close SW of the fort and a church, with two domes, stands close SW of it.



Ponta do Noronha Light

Two prominent radio masts, 30m high, stand 0.6 mile NE of the fort.

A lighted range, which may best be seen on the chart, leads in a NE direction and indicates the approach to Porto Saco.

Pilotage.—Pilotage is compulsory. Pilots can be contacted by VHF and board at the entrance to the bay. Vessels are usually berthed during daylight hours only. Vessels proceeding to Porto Saco and which are carrying inflammable cargo must send an ETA with product details at least 48 hours in advance via Luanda (D3E).

Anchorage.—Baia de Namibe provides good anchorage and is sheltered from all winds except from those between N and NW. Good anchorage, out of the swell, may be obtained, in a depth of 13m, mud and sand, in the SE part of the bay, about 0.5 mile NW of Fortaleza de Sao Fernando.

Tankers and bulk ore vessels normally moor off Porto Saco; the anchorages are assigned by the port authorities.

Caution.—A fishing fleet is often encountered off Baixa Amelia at night.

It is reported that the navigation lights in the vicinity of the bay cannot be relied upon.

Namibe to Ponta Albina

4.78 Ponta da Anunciacao (15°14'S., 12°03'E.), located 3 miles SW of Ponta das Barreiras, is low, sandy, and indistinctive. A spit, on which the sea breaks heavily at times, extends up to about 0.3 mile N from this point. To the S of the point, the coast becomes cliffy and is backed by hills.

The **Rio dos Flamings** (15°33'S., 12°01'E.) enters the sea, 19 miles S of Ponta da Anunciacao, from a gorge lying S of Morro Columbi, which is 117m high. A light is shown from a tower with dwellings, 11m high, standing 1 mile SSE of the river mouth. A stranded wreck lies on the foreshore about 8 miles N of the river mouth.

Cabo Negro (15°40'S., 11°56'E.), located 9.5 miles SSW of the mouth of the Rio dos Flamings, is a remarkable headland. It is formed by a precipitous mass, about 65m high, which rises at the extremity of a low point and resembles an island. The cape has a round and rugged black face, which is encrusted by different colored earths and sands abounding in fossilized shells. The summit of the cape is surmounted by a pillar which

is the remains of a marble cross erected there by Diego Cam in 1486.

The Rio Curoca (Rio Coroca) enters the sea 3 miles SSW of Cabo Negro. A bridge spans this river about 1 mile within its mouth.

4.79 Tombua (Porto Alexandre) (15°48'S., 11°50'E.) is entered between Ponta do Pinda, located 2 miles SSW of the Rio Curoca, and Ponta do Porto, 3 miles SW. The latter point lies at the NE extremity of a low, narrow, and sandy peninsula which forms the N and W sides of the harbor. The town stands along the S shore of the bay, which is low and sandy. The harbor is sheltered and frequented by fishing vessels and coasters with local knowledge.

Ponta do Pinda, the N entrance point, is 38m high. It is prominent and projects from the interior like an immense wall. Ponta do Porto, the S entrance point, is low. A light is shown from a structure, 8m high, standing on this point. Both the harbor and the town can usually be seen over the peninsula. A small airport is situated 1 mile E of the town.

Banco do Pinda, with a least depth of 8m, lies about 1.2 miles NNE of Ponta do Porto, in the N approach to the harbor. Baixo da Ponta Brava, with depths of less than 10m, extends up to about 1 mile N from the N side of the peninsula.

The town is fronted by a small jetty. Vessels can moor within the bay, in depths of 20 to 30m, sand and mud with good holding ground. The best anchorage lies, in a depth of 29m, mud, about 0.2 mile off the town.

Regulations.—Vessels may not berth at night after 2000. Vessels may leave at night if prior arrangements have been made with the pilot.



Ponta Albina Light from NW

Caution.—It has been reported (1998) that all aids to navigation may be missing, unlit, out of position, or otherwise unreliable.

4.80 Banco Grande (15°45'S., 11°48'E.), with depths of less than 13m, extends up to about 3.5 miles N of a point on the shore located 4 miles W of Ponta do Porto.

Ponta Albina (15°53'S., 11°44'E.), a low point, is located 9 miles SW of Ponta do Porto. A light is shown from a tower, 38m high, standing on this point and another tower, 7m high, is situated close to it.

Caution.—Ponta Albina is reported to be extending to the W. The coast in this vicinity is formed by a low and sandy beach on which there are heavy breakers.

The sea in this area is always in a state of disturbance due to the currents running past this point in a violent and irregular manner, generally in a N or NW direction.